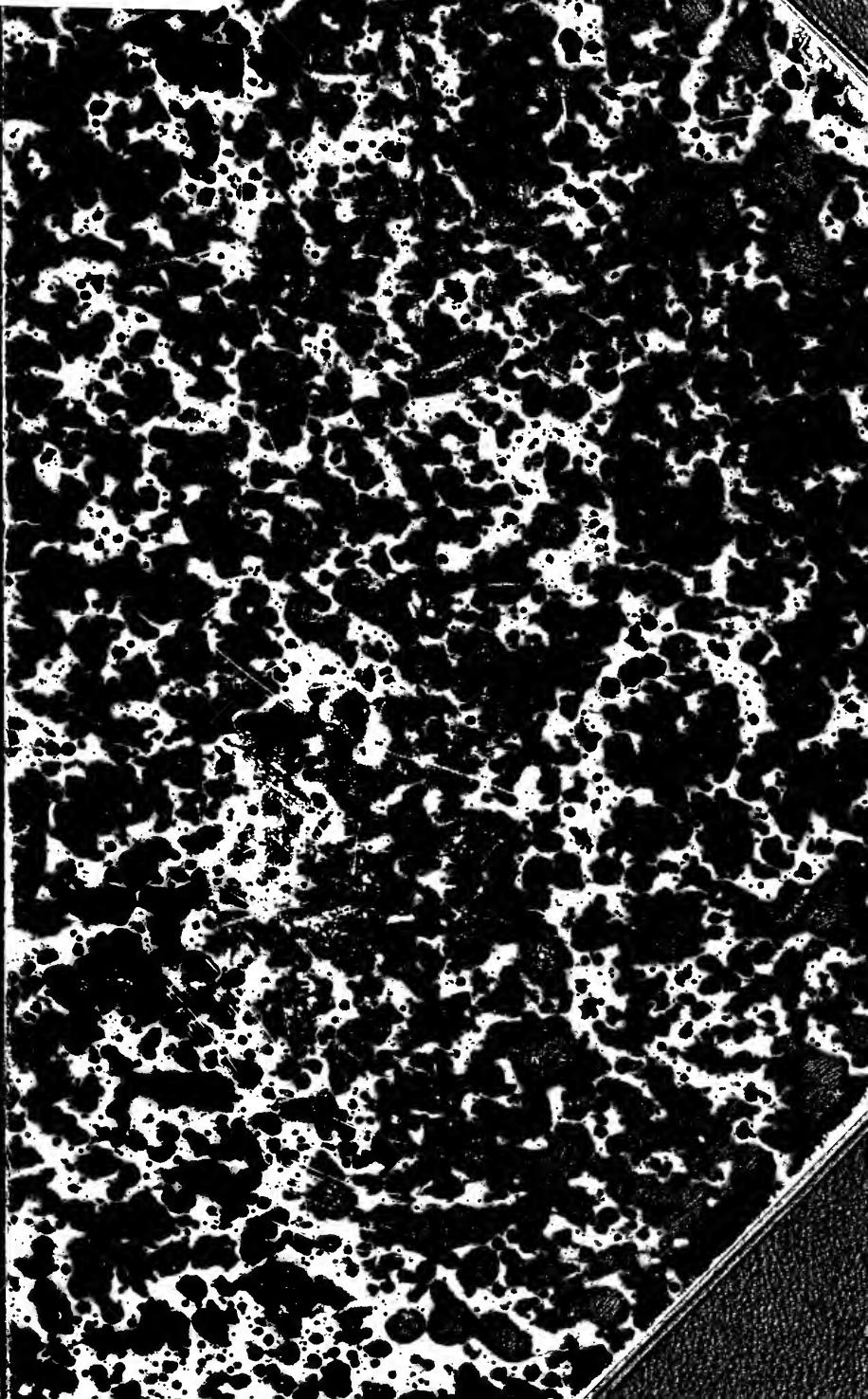


UMASS/AMHERST



312066005300541

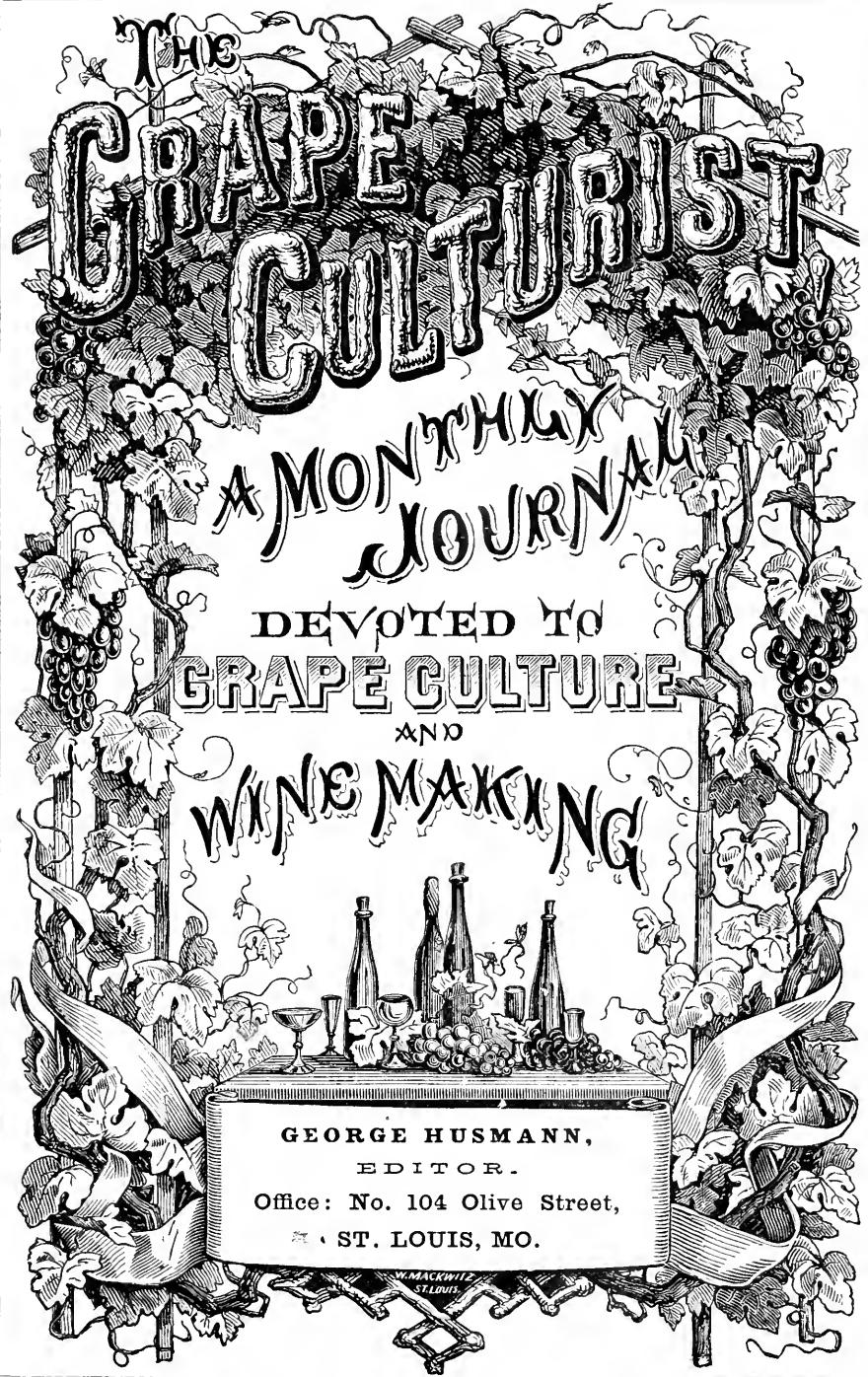




UNIVERSITY OF MASSACHUSETTS
LIBRARY

SPECIAL COLLECTIONS
OR ARCHIVES

September, 1870.



Terms of Subscription: \$2.00 per annum, in advance.

R. P. STUDLEY & CO., PRINTERS.

164 V. 2 TABLE OF CONTENTS.

September—Work for the Month	- - - - -	231
Twitchell's Acidometer	- - - - -	231
Training Chain Culture	- - - - -	232
The Scuppernong Again	- - - - -	233
A New Grape—The Theodosia	- - - - -	234
Grape Culture	- - - - -	235
The September Number	- - - - -	239
Reports on Grapes	- - - - -	240
The Coming Man Will Drink Wine; or, Common Sense vs. Prohib- itive Laws	- - - - -	247
Concerning Wine	- - - - -	249
Temperance	- - - - -	253
The Zymotechnic News	- - - - -	253
Editor's Letter Box	- - - - -	254

SPECIAL CONTRIBUTORS.

Hon. MARSHALL P. WILDER, *Boston, Mass.*
C. S. BARTHOLOMEW, Esq., *Westfield, N. Y.*
Hon. FRED. MUENCH, *Femme Osage, Mo.*
Hon. ISIDOR BUSH, *St. Louis, Mo.*
M. H. LEWIS, Esq., *Sandusky, O.*
GEO. EISENMEYER, *Mascoutah, Ill.*
THEOD. ENGELMANN, *Mascoutah, Ill.*
SAM. MILLER, *Bluffton, Mo.*
GEO. W. CAMPBELL, *Dalaware, Ohio.*
Hon. JNO. R. EAKIN, *Washington, Arkansas.*
A. B. ROBERTS, *Walla Walla, Washington Territory.*
CHAS. H. FRINGS, EDITOR *ZYMOECHNIC NEWS, St. Louis.*
R. D'HEUREUSE, Esq., *New York.*
F. R. ELLIOTT, Esq., *Cleveland, Ohio.*

GRAPE CULTURIST.

VOL. II.

JANUARY, 1870.

No. 1.

A HAPPY NEW YEAR.

We can not omit, when entering upon our editorial duties for 1870, to offer to all our readers, old and new, the compliments of the season. May the sun of the new year shine more genially upon their efforts than that of 1869; may their favorite plant thrive, from the Atlantic to the Pacific; may their casks be filled with the best juice of its fruit, so good that it will find a ready sale, gladden the hearts of all who drink it, and comfort the afflicted; and may they, in the enjoyment of all those blessings, not forget the GRAPE CULTURIST, but welcome it to their hearths and homes, lend a willing ear to its counsels, and derive much benefit from them. May they not forget, also, to send their contributions of useful experience to its columns, and we thus mutually *teach*, while we *learn* from each other.

We are induced to enter upon the second volume, even before the 1,000 subscribers are registered, which the paper must have to pay expenses, by the earnest request of many friends, who seem to think they cannot do without it, and who all say that they are sure it need only be known among the grape growers to be appreciated and supported. We have spent nothing for advertisements; we do not offer

any premiums of sewing machines, gold watches and jewelry, we are too proud to resort to such means, to enlist the sympathy and exertions of our readers. If the GRAPE CULTURIST cannot, by its intrinsic merit, by the information and advice it brings to its readers, induce them to exert themselves in its behalf, if it cannot carry its recommendation and its passport to the firesides of its readers, on its own plain and unassuming face, then let it die, the sooner the better. The public cannot *hire* us with mere pecuniary gain to write for them, without also the consciousness of doing some good, and giving our readers the full equivalent of their subscription.

Some of our agricultural journals, no doubt with the best intentions, have mentioned our paper, and stated "that they *almost* considered it a necessity, were it not that many of the agricultural press of the day had a vineyard department" in which all matters relating to grape culture were discussed. Now, while we thank them for their kind intentions, we cannot help but differ from them in regard to the value of such information as they allude to. It reminds us of the space and the premiums generally allotted to the wines in the premium list of the St. Louis Agricultural and

AUG 11 1955

Mechanical Association, where *all* the premiums offered for wines generally amounted to about \$50 annually, while they give \$1500 for the best blooded stallion; and where the *Isabella* wine is put upon the premium list year after year, although every one at all conversant with grape growing knows that it is entirely unworthy of culture in this State. The editors of such journals, not being practical grape growers themselves, publish any and every thing sent to them, good or bad, practicable or impracticable, and thus sometimes do their readers more harm than good, although they may have the best intentions. What the grape growers of the country need, is not so much an immense amount of *writing* upon the subject—for we have a superabundance of that already—but a careful selection and compilation of the most practical experience, an exchange of ideas of practical working men, revised and sifted impartially and liberally, with a fair show for everybody,

by a practical grape grower and wine maker, who will at the same time chastise all humbuggers (of whom we have not a few among us, more is the pity) with a scourge of iron. We will try and supply that need, and to do it well, we ask the help and support of our readers. Send in your contributions from all parts of the country, exchange your views, and we will give you ours in return, thus making the GRAPE CULTURIST a welcome visitor at the fireside of every grape grower. To our brethren of the press we return thanks for courtesies received, which they will find us willing to return at all times.

We send the GRAPE CULTURIST to *all* its old readers again, as we feel sure that we shall not lose any of them, and hope they will forward their subscriptions promptly, with additional names from their friends.

GEORGE HUSMANN.

Bluffton, January 3, 1870.

JANUARY.

WORK FOR THE MONTH.

Many vintners consider this a month of rest, and spend their time behind the stove, or still worse, in lounging about the country store or bar-room, allowing their precious time, of which not an hour should be lost, to slip by. It is generally this class who complain about being crowded with work, and not able to get through, in spring or summer. There is abundance of work even in January.

Ground for new plantations may be grubbed and cleared, in fair weather; if they were not able to prune all their vines in the fall, this may be continued, and cuttings made of the trimmings. For *modus operandi*, see article on Pruning the Vine, in November number, Vol. I. Do not allow your grape-wood for cuttings to become dry. It may be bundled up in the vineyard, taken home, buried in

sand or kept in the cellar, and trimmed and cut into cuttings at your leisure, in the shop or room. Cuttings may be made nine to ten inches long, cut with a sloping cut close below the eye on the lower end; leave about an inch above the eye on the upper. Tie in convenient bundles, and bury in the ground or in sand in a cool cellar.

You can also prepare material for trellis, as it is seldom too cold for the use of the axe out of doors. Posts should be seven feet long, and about three inches square, made of red cedar, mulberry, honey locust, white oak, or

any other durable timber, set two feet deep, and about twenty feet apart in the rows.

If a vineyard is old and exhausted, this will be a good time to manure it. The best manure is new surface soil, leaf mould, and decomposed vegetable matter or compost. Animal manures, if used at all, should be well decomposed, as they create a rank, succulent growth, productive of rot and mildew, and also impart a disagreeable flavor to the fruit and wine. All manures may be put on as a top dressing.

For The Grape Culturist.

CARE OF FROZEN VINES.

FRIEND HUSMANN:

Lately I heard a letter read, which was an inquiry: "The vines came to hand froze in one solid mass; what shall I do with them?"

Now, as I had a hand in packing those vines, and in a certain measure feel myself responsible for their welfare, I will inform your readers, at least, what to do in such a case.

The sudden cold snap in November has taught us a lesson that should not soon be forgotten. Vines to go a considerable distance should be packed in such a manner that cold will not affect them, unless exposed so long as to actually dry out the moss and all. This rarely takes place, however; but when a box comes to hand in cold weather, that is frozen solid, you have only to put it into a cellar or pit until it thaws, when all

will be right. Thawing in the dark and excluded from external atmosphere, will leave most things in the condition they were in previous to being frozen; while, if taken out and suddenly thawed in a warm temperature, and exposed to light, they will speedily perish. I have had apples frozen in tight barrels for six weeks, yet come out fine in the end. Perhaps you remember an invoice sent you some years since, from a thousand miles east, that was a month or more on the way, yet all kept safe except the potatoes.

Hoping that the vine growers may see fit to make up a subscription large enough to warrant you in continuing the **GRAPE CULTURIST**,

I am truly yours,

S. MILLER.

BLUFFTON, Mo. January 1st, 1870.

THE WINE-CELLAR.

If you wish to get your wine clear and fine, and ready for sale, rack it frequently, bringing it in contact with the air each time. This is done more effectually by running it through the rose of a common watering pot, which can easily be attached to the faucet. But above all things, clean your casks well of every particle of the lees which may adhere to them; do not consider them clean until the water with which you wash comes out perfectly clear. Then fumigate with sulphur, before you put in the wine, and if your wine has fermented thoroughly and rapidly you will have no trouble in getting it clear. Should it be very obstinate, you can rack every two weeks. Even if you intend to keep it through the summer,

it should be perfectly clear and free from lees before May. Keep your casks well filled, and let the bung fit tight. This is the principal month for racking and clearing your wines. The cellar should be kept at a temperature of about 55°.

If you have empty casks, clean them thoroughly, then turn them over on the bunghole, so that all the water can leak out; let them lay so for a day or so, then fumigate with sulphur, and bung tight. The sulphuring should be renewed about once every six weeks; and, before the casks are used, throw in a pailful of water, shake thoroughly, so as to take out the smell of the sulphur, and your cask is ready for use.

— — — — —

From Tilton's Journal of Horticulture and Floral Magazine.

CALIFORNIA WINES.

Mr. Charles L. Brace, in his recently published book, *The New West*, speaks very plainly about the wines and vineyards of California, and tells some truths which are not much to the credit of the California vignerons. He says that most of the vineyards are cultivated by small growers, who have seldom if ever tasted a good wine, and who imagine their own the very best wine in the world; that the wines have suffered from being overpraised; that instead of being weak, and of a high aroma, they are deficient in aroma, and

altogether too rich in alcohol; that they do not compare favorably with the good and light table wines of Europe; that in fact, on a broad scale, wine making in California has been a failure, shown by the fact that, with a production of three million gallons, only sixty-three thousand dollars' worth were exported in the last six months of 1867, or thirty thousand dollars' worth *less* than in the same period of 1866; and finally, that, in many places, the price has fallen to one-tenth, and even to one-thirtieth the price of French claret.

Mr. Brace further says, that the fault does not inhere in the grapes, the soil, or the climate, all of which are extremely well adapted to wine making, but is to be found, in his opinion, in a lack of honesty and thoroughness, both on the part of the manufacturers and on the part of their agents. He says that the Port is doctored, and the Angelica is prepared for us (at the East) by adding sixteen or eighteen per cent. of brandy; that the casks are often carelessly coopered, thus injuring the wine at the start; that the wine is often not old enough, and ferments on the passage; that it is re-doctored in New York, and then palmed off on the public for pure California wine. Then there are other difficulties. Mr. Brace says he saw one wine-cellar occupied half as a stable, and half as a wine-store; and he justly adds, that any one who knows anything of the sensitive nature of fermenting wine can judge of the effect of the stable odors on its quality. Too much dependence has been placed upon one variety, the Mission Grape, which the writer says is the favorite, because they tried it first, and it happened to succeed.

Vines are planted about six hundred and eighty to the acre, trained low, and seldom staked. The yield is from four hundred to a thousand gallons per acre.

The Zinfandel, White Muscatine, and White Riesling are among the kinds grown for wine.

Innumerable experiments have been made at great cost, and countless failures experienced, in making Champagne wine; but success seems now not far distant.

It is curious to learn that the Catawba Grape is a great favorite with some growers in a climate where the

Black Hamburg and the Muscat of Alexandria can be grown to sell for eight cents per pound.

Such is the bad reputation of the Californian wines at home, says Mr. Brace, that, out of four hundred thousand gallons made by the Anaheim Colony, two hundred and fifty thousand are still in bond, and the ruling price is twenty-five cents per gallon.

In spite of all these mistakes and crudities, the writer we quote makes the safe prophecy, that California will come out all right, and be as vast a vine-growing and wine-making State as France herself.

[In copying the above, we can only add that we have not read anything which, in the main, expresses our views on the subject of California wines more plainly than this article. The author evidently writes with a just appreciation of the difficulties under which the wine growers labor there, difficulties which we can all the more appreciate, as we have labored under them ourselves and still suffer from them to a certain extent here. We allude to the inexperience of our grape growers, to the want of systematic and scientific treatment of our wines, and to the tenacious adherence *here* to the Catawba by our vintners, as tenacious as the adherence *there* to the Mission grape. We exactly coincide in his views about the character of Californian wines. We have tasted hundreds of samples of them, here and at the East, and the objections we had to them were, not their want of body, for they are only too heavy, but their total want of bouquet, flavor and sprightliness. They drink more like *cordials* than *wines*, and have about the same effect on the

system. This may, to a very great extent, be owing to the manipulations of dealers—in fact, California grape growers have candidly acknowledged to us that their wines would not stand a voyage around Cape Horn, without addition of spirit; but we also believe that the climate and soil exercise a great influence in this respect. May they not be too far *south* to produce wines which can be compared with the Hock wines, the light white and red wines of France, etc.? We think experience teaches us that the nearer we approach the torrid zone in the culture

of the grape, although the wines may have more body, consequently intoxicate sooner, they become deficient in bouquet, and in that sprightly, invigorating effect which wines grown in the temperate zones have upon the system, and which makes wine, what it should be, the most *spirituelle* of drinks, the “dispeller of sorrow.”

We offer these thoughts to the kind consideration of our California friends, and shall be happy to hear from them upon the subject, and to be corrected, should they think us wrong in any of our views.—ED.]

—————
REPORTS ON GRAPES.

ARENZVILLE, Dec. 29, 1869

Mr. GEORGE HUSMANN,

Dear Sir:—Having just received all the numbers of the GRAPE CULTURIST up to December, I take the liberty to express my perfect satisfaction with the same, and you may consider me a life subscriber; it is just the journal every grape grower ought to read. Perhaps some remarks on certain varieties of grapes may not be out of place here, and to begin with my favorites, I will say of the Delaware, that it yielded a full crop this year, without any rot or mildew, and a fine growth of wood for next year. I made about 100 gallons of wine of it, that is now almost clear, of good body, fine flavor, and color. I shall plant more of them. Creveling is my next favorite, very productive with well set bunches, tolerable healthy in foliage, and makes a wine of fine flavor, without any foxy aroma to it.

Cynthiana, Arkansas, Herbemont, Rulander and Louisiana, fruited with me the first time. As I got the plants from you three years ago next spring, I had not enough of each to make wine from. I put them all together; that is, the grapes from four vines of Cynthiana, one Arkansas, four Herbemont, one Rulander, one Louisiana, of which I made ten gallons of a bright purple colored wine of great body. The grapes were also entirely free from rot and mildew, but with the closest examination I cannot discover any difference between the Cynthiana and Arkansas, likewise the Rulander and Louisiana.

Norton's Virginia have not borne much yet with me, but am much pleased with the growth of them, and I have a prospect of a good crop next year. (I would remark here that all the late ripening grapes always ripen well here.) Concords I have mostly on the

north side of a hill, with about fifty vines on a southern slope; those on a northern slope were very fine, without any rot at all, while those on the southern slope rotted some, though not very extensively. Roger's Hybrids, Goethe, has not fruited yet. No. 3, Massasoit, set the fruit well and very full, but when the berries were of the size of peas the fruit and leaves all became spotted and dropped off, and very nearly ruined the vine. No. 4, or Wilder, is a splendid grape and very productive. No. 15, Agawam, almost worthless; it is too foxy and rots. No. 19, Merrimack, fine. No. 30 also very fine, except that the berries are a little smaller. Ives—if this is not more productive next year than it has been, I shall dig them up again. Iona and Isabella, if I had my money back that I spent on that glorious Grant production, I would be willing to say no more about them. I would not recommend them to anybody. Martha promises well, only a little too foxy. Maxatawney, healthy and fine, though not very productive so far. Catawba and Diana, rotted over two-thirds of the crop. Hartford Prolific, excellent for market. I have other varieties growing, but will abstain from making any remarks at present on them.

I am very much interested in raising new seedlings, in particular of the Creveling, of which I have about two hundred seedlings growing, most of which I expect to fruit next summer. I have also seedlings of Hartford, Concord, Delaware, Catawba, and of a German grape called the Oestereicher, which I expect to all fruit next year. This fall I again planted about one pound of seeds of the following vari-

eties: Cynthiana, Louisiana, Creveling, Concord and Delaware. Should I succeed in getting anything promising, I shall send you some of them for trial.

Yours truly,

HENRY TIEMEYER.

ARENZVILLE, Cass County, Ills.

[The Cynthiana, Norton's and Arkansas, are very much alike in fruit and foliage, but there is a *great* difference in the wine. The same is the case with the Louisiana and Rulander. Ives will be productive enough when the vines become older. We hope you may raise something good among your seedlings, and if you do we shall be glad to try it.

Your report is an interesting one, and as you seem to be a close observer, we hope to hear from you again.

—ED.]

ALBEMARLE COUNTY, VIRGINIA.

While from the West I read of too much rain, and, in consequence, rot in the vineyards, here every farmer had good reason to complain of drought,—June, July, and August,—in the immediate neighborhood of Charlottesville, hardly three times a shower! which each more properly could be called a sprinkling, as at no time the rain sunk in well tilled soil, deeper than one inch. As I planted but last fall, and charge the loss of nearly the half of 5,000 Delawares then planted to this drought, you will understand why I perhaps relished this weather but little.

But if newly planted vines did suffer, older ones and especially bearing ones seemed to enjoy it so much more. The Delaware, on rich red soil consisting of decomposed marl, with greenish blue and red marl subsoil, for the first

time held its leaves as well as could be desired. Here, on such soil, it ranks amongst the good growers, which I am sorry to say the Creveling does not.

During the last four seasons I have had opportunities to see here the following varieties under cultivation, which I rank according to merit, as follows: Norton's, Delaware, Catawba, Clinton, Concord, Herbemont, Creveling, Alvey, Diana, Ives, Adirondac, Rebecca, Isabella, Iona, Maxatawney, and Taylor's.

Norton's in their fourth season (after planting) averaged 12 pounds of grapes and 15 plants from layering; gathered Sept. 15, the must scale showed 89°. Delawares were ready for shipping the first week of August. The latter part of the same month saw but very little fruit left on about 2,000 bearing vines, mostly in their third, a few in their fourth season. Those in their third season bore about 2½ pounds of very fine fruit. These had been thinned out to from, at an average, 15 to 18 bunches each, because it was thought that Delawares in their third season in the summer of 1868, which were over-tasked with 45 bunches in some instances, were none the better for such severe work. Well, they ripened about 24 bunches, but at least 10 to 22 days later than those with less fruit. It may seem but little to get but 2½ pounds of grapes per vine, but I believe the advantage is with the little weight, the third and increasing quantity every later year. For this there is here now the best of prospects, as there is no scarcity of young canes of $\frac{3}{4}$ inch diameter to 9 to 15 feet long.

The principal market was New York, reached by Adams' Express in 18 hours, at an expense per pound of 2½

cents. Delawares sold readily this season at from 35 to 25 cents per pound; though peaches were in the beginning of August a drug on that market at 50 cents a basket. Whatever was left over, mostly because not good enough for marketing, was gathered and pressed Sept. 15, and showed 84° on must scale. Concord brought 7½ pounds on gray soil in their third season, better than four year olds on red soil; ripened with, yet not quite as early as Delaware. Market price 20 to 15 cents per pound. Gathered Sept. 11th, according to must scale 75° Clinton 14 pounds a vine. Sept. 15th, must 99°. This rampant grower will some day perhaps stand with the Rulander at the head of the list, in this section. But as I have seen but two vines in bearing, I have not yet had an opportunity to judge of the wine by itself. Alvey 4 pounds per vine. Sept. 5th, must 96°. Diana about 3 pounds per vine. Must 82°, pressed Sept. 5th. Ives', in their fourth season, 4 pounds per vine, very foxy. Must 70°, pressed Sept. 5th. Iona, in their fourth season, wretched grower so far; fruit, what there was of it, good. Of sixty vines of that age, I had trouble to cut 30 pounds of grapes. I believe if I had not carefully cut every single berry even, the weight would not have reached half a pound per vine. Cut and pressed Sept. 11; must weighed 94°. Catawba, in their fourth season, 15 pounds per vine. Price in New York, 20 to 16 cents per pound. Forgot to make note of weight and time of pressing; think, however, it was 83° and Sept. 15th. Herbemont were so much tasked by layering, that but little fruit matured. Must 81°, Sept. 15th.

There is no doubt in my mind that Catawba did better here this year than Norton's even, but as such favorable weather is not to be looked for often, all Catawbas over three years old were grafted with H'erbemont, Norton's, etc., during the month of November.

The grapes of nearly all the varieties were pressed three weeks too soon, which was necessitated by inroads made by ants. This pest showed itself as a small yellow variety, and before discovered at it their work was charged to wasps. Perhaps some reader of the GRAPE CULTURIST knows of something better to extirpate them than careful tillage?

So far, we have but a few acres here in bearing; two years hence, we will have in this immediate neighborhood at least 50 acres in bearing, Delaware predominating.

Respectfully,

FRED. HILDEBRAND.

CHARLOTTESVILLE, Dec. 9, 1869.

ST. JOSEPH, Mo., December 25th, 1869

DEAR EDITOR:

I have been reading the "CULTURIST" during the last year with great interest. It appears that you have no correspondent from this portion of the State; hence I have concluded to give you the result of the last season's efforts in this part of the State, in the culture of grapes.

From the best information that I can gather after considerable inquiry, there must be over one hundred thousand grape-vines planted within six or eight miles of St. Joseph—the greater part near the city. Here, as elsewhere, some of them are well cultivated, some half cultivated, and others scarcely cul-

tivated at all; and, also, some are in full bearing, some only commencing the last season to bear, and others only planted the last season. I may add that more would have been planted, but for the reason that the grasshoppers or locusts have been so destructive of young vines in this vicinity for the last few years, that most persons were deterred from planting. No eggs having been deposited by the grasshoppers during the last fall in this country, the prospects are that planting will be more largely engaged in during the coming spring.

It is needless for me to tell you that the past season has been unfavorable to grape culture, except in favored localities, and as to the most healthy varieties.

The Catawba here generally rotted to some extent—in some localities worse than others. I suppose that, upon an average, not more than a half crop was obtained, and that was rather late maturing, so that the quality was not generally first-rate. We think, however, that we have discovered here the Catawba can be cultivated with a fair prospect of success upon some of our river hill lands, the soil where they succeed best being of a light ashy color, very light and porous, with an intermixture of particles of limestone and sand; and, in elevated and warm situations, a southeastern exposure being preferred. In all other kinds of soil and localities, I think it to be unsafe to rely on the Catawba for a full crop in this part of the State.

The Hartford Prolific is entirely hardy, and, notwithstanding the abundance of wet weather during the last season, the vines and foliage were perfectly healthy.

They set a large crop of fruit last season; in some localities they were inclined to, and did rot slightly; but I may say a good full crop was obtained, which ripened well, and the fruit was very little inclined to drop from the bunches.

The Delaware set finely with fruit; was not in the least affected with either mildew or rot; but in a great many cases the foliage dropped from the vines before the fruit was ripe, in which cases the fruit of course never ripened. Although the Delaware is much admired here for the beauty and excellence of its fruit, yet no one, I think, would be willing to plant them here to any considerable extent.

The Concord is the grape now most cultivated, and seems to be perfectly at home here. The foliage during the last season was perfectly healthy; the vines set a heavy crop of fruit that ripened in the most perfect manner, with so little inclination to rot that it is scarcely worthy to be mentioned. It seems to be everything that could be desired in the way of productiveness, and in this county, where our tastes have not been cultivated, we think it to be a pretty good liable grape and begin to like Concord wine.

To give you an idea of the productiveness of the Concord here the past season, I will just state that my neighbor, Jacob Madinger (with whom you are acquainted), had a patch of Concord vines, nearly an acre, last season being the fourth season from planting, and they had been injured two seasons badly by the grasshoppers until they were not larger than they would otherwise have been the third season. He selected an average row of these vines,

and gathered and weighed the grapes; the result was over twenty-two pounds of well-ripened grapes to the vine. I believe that other vines in this country, where they were well cared for, did equally well.

The Norton's Virginia has not been cultivated here to any great extent; but what have been cultivated have been healthy, bear well, and the grapes make a most excellent wine. The Diana rotted pretty badly the last season, and the vines are too tender to stand our severest winters; produce fine grapes in a favorable season.

The Taylor has not set fruit well, and is being discarded.

The North Carolina Seedling is healthy; bore good fruit last season; ripened well, without rot.

The Isabella promises well; bore fine clusters of fruit last season, of good quality, and was not affected with either mildew or rot.

The Iona dropped its leaves: does not seem to be healthy, but upon further trial may do better.

The Clinton bears profusely; had no rot the past season, but did not ripen as evenly as usual. It is hardy, and is growing in favor.

The Goethe, or Rogers' No. 1, did well last season. The vine seems hardy and healthy; is a vigorous grower, and fruited well last season.

The Ives' Seedling has fruited but little here; but what few vines fruited last year, bore perfectly healthy fruit. The vines are hardy, and make a very strong growth of short-jointed wood.

We have a good many other varieties upon trial, the most of which have not fruited, and of course no report can be made as to their success.

Myself and my partner (Allen H. Vories, Esq.,) have a vineyard of about twelve acres planted; will most all be in bearing the coming season. Our vineyard consists principally of Concord) Hartford Prolific, Virginia Seedling, Clinton, and Ives' Seedling. We have some eighteen or twenty other varieties on trial. You will see that we have no grape for white wine to take the place of the old Catawba. We want to plant some white grape, or grape for white wine, but we don't know what to plant. We are bewildered with the great number of new varieties being forced upon the public, which, if we could believe what is said of them, must be perfection itself; but we are constantly reminded that what seemed to be perfection and everything to be desired last year, is thrown aside this year as almost worthless, to give place to the Walter, Eunelan, or some other new grape which it is said will supersede all others. We are afraid to plant our ground, for fear we will find next year that we have the wrong grape on it. Mr. Editor, what shall we do?

To conclude this already too lengthy communication, I will just say that we consider grape growing in this part of the State as a success. We now plant Hartford Prolific, Concord, Virginia Seedling, and Clinton, and, in fact, many other vines, with as much certainty of getting a return as the farmer plants his corn, and we feel satisfied that no part of Missouri is better adapted to the culture of grapes, either as to the quantity of grapes to be produced, or as to the quality of the fruit, than is the country immediately around the city of St. Joseph. I am, very truly, etc.,

II. M. VORIES.

[Thanks for your interesting report. We are well aware of the advantages your part of the State affords, although we cannot admit that it is *better* adapted to grape growing than other sections we know.

We think your Delawares *had milder on the leaves*, or they would not have dropped them.

We think we may safely advise you to plant Goethe, Martha and Maxatawney for *white wine*, as we have fruited them all during five or six years, found them uniformly healthy and productive, and hear favorable reports of them from all parts of the country.

You ask "What shall we do?" in regard to planting new varieties. We answer: Do not plant *extensively* of any *new* grape, until it has undergone at least four and five years' trial in your State. We are *very* reluctant to recommend any new grape for *general planting*, but think you will not risk anything with the three named. What we want is a substitute for the Catawba, to make a light, agreeable white wine, without its liability to disease, and we are *convinced* we have found them in these for *our section*.

It is well to try all new varieties; but it will not do to plant largely of them until they have been fully tried. This may be profitable to those who *propagate* them, but quite the reverse generally for those who pay for them and plant them.—ED.]

LANCASTER COUNTY, PA.

FRIEND HUSMANN:

As you are receiving reports of the success and sometimes failures, of grape growers in the West and South, which is very interesting to those re-

siding in other localities, perhaps a short account of our doings and prospects on grape growing, and the varieties that succeed best in our limestone soil of old Lancaster county, Pa., might be interesting to some of the readers of the GRAPE CULTURIST.

The season of 1869 was very wet here till about the middle of July. Grape vines began to show some mildew. From the middle of July till the middle of September, (though we had a few showers) it was generally quite a dry spell. During this dry spell, the mildew was arrested, and the vines recovered their healthful vigor. The earlier varieties ripened perfectly. During last of September and October, we had heavy rains, that saturated the soil thoroughly. This wet spell prevented the late varieties from ripening fully. However, such varieties as Concord, Caroline, Black Hawk, Martha, Hartford, Cynthiana, N. Carolina seedlings, Telegraph, Maxatawney, eight or a dozen of Rogers' hybrids, with half a dozen Fox, and several varieties of *Cordifolia* and *Estivalis*, ripened perfectly on my own ground. The Isabella too, in most localities, after a failure of several years, again recuperated, and produced good grapes as of yore. Even the Catawba, in some instances and favorable localities, tried hard to recover its old reputation. The Delaware, like all of the *Vinefera* class, was, as usual, generally a failure. Only in some favorable nook will it perfect a few small bunches—very good where it succeeds.

Should we be spared another season, and the GRAPE CULTURIST continued, as we hope it may be with a largely increased subscription list, I may then

again send you report on grapes—of old ones, and some new ones that have not fruited with me, but their appearance of growth is very promising. These are five varieties of Mr. Arnold's hybrids, of Canada, four of St. Underhill, of New York, and three of Dr. A. P. Wylie, of South Carolina—all cross breeds—not forgetting the appearance of Miss "Peggy," of Iowa.

Very respectfully,

J. B. GARBER.

[Thanks for the report. When you class the Delaware with the "Vinefera," however, we think you will find yourself on untenable ground. We have seen true seedlings of it, which looked so near alike to some of our wild *Æstivalis*, that it would take more than a "Philadelphia lawyer" to distinguish them. Besides, the Delaware does not stand alone in that class. The Creve-ling bears a very close resemblance to it in growth, foliage and wood, and we know where it originated, whatever doubts there may exist about the Delaware.—ED.]

—
LITZ, Lancaster Co., Pa.

Our grape crop was not large. The weather was too dry after mid-summer, thus the berries were smaller than last year, and the Clinton lost its leaves badly for a while, but later did better. The grapes were very good. Clinton must weighed 92° on Oechsle's scale. Concord I did not try with the scale, but they were most excellent for eating. Martha did well also, and we made a small sample of wine of it, which I think not hard to take.

Yours truly,

JOHN HUBER.

GRAPE HUMBUGS AND THEIR DISSEMINATORS.

Unfortunately we have, among the multitudes of earnest workers and thinkers in our noble profession—men who toil with earnest zeal for the good of the cause, also a small proportion we may class as the sharks and hyenas, men who are continually ogling after the purses of their neighbors, seeking how they may devour them, without regard whether those taken in by them will receive the value of their money, or whether they must pay a high price for an entirely worthless thing. We feel it our duty to warn our readers against all these birds of prey which come to our notice, although the task is not a pleasant one. We shall give only *facts* which come under our observation, and will state here, once for all, that our columns are open to all who think themselves aggrieved or unjustly assailed, to make their defense.

Dr. J. C. Hyde, formerly of Bluffton, lately of Portland, Callaway county, Mo., now of Brocton, N. Y., has taken the liberty, on a speculating tour made by him last fall, to exhibit grapes as the Salem, which, he stated, came from Bluffton, which were *not* Salem. Lately he has asserted to a friend of ours, who visited Brocton and its surrounding vineyards, that we had no *true* Salems at Bluffton, but had, during the confusion existing in regard to the numbers of Rogers' Hybrids, received the wrong number.

Now, the Salem vines at Bluffton came from two sources, of the reliability of which we will allow our

readers to judge. The wood from which the greater part was grown came from a vine in our old vineyards near Hermann, which was sent us from the Experimental gardens at Washington, as No. 22, which Wm. Saunders, Charles Downing, and many members of the Am. Pom. Society saw bearing on our grounds and pronounced the *true* Salem. Hon. Marshall P. Wilder, George W. Campbell, and others whom we always considered good authority, pronounced it Salem at the exhibition, fall of 1867; and we would rely on *them* at all times, in preference to Dr. Hyde. The other vines at Bluffton came from the *Salem-on-Erie* nurseries, in the spring of 1868. Whether this stock is reliable, we leave the public and themselves to say. At least, *they* seem to think so. But the best of the matter is, that none of them have fruited at Bluffton; consequently Dr. Hyde could not obtain any fruit of them there.

The upshot of the matter seems to be this; Dr. Hyde is at Brocton now, seems to be strongly interested in the Salem, and because we could not, in justice to our readers, give a very favorable report of the Salem at Bluffton or Hermann, the last year, as it suffered a good deal from disease, and has *never* yet set fine bunches with us, he tries to get over this by spreading a report that the Salem we have is not true. Such means to bolster up the sinking reputation of any variety do not seem honorable to us, however

well they may suit the notions of honor Dr. Hyde may have. The fact is, we have never seen bunches of the Salem which at all compared with the illustrations of it sent out by its disseminators, *nor do we expect we ever will.*

It is not the first time, however, that the Doctor resorts to such practices. While agent for Dr. C. W. Grant, for the sale of his grapes, he praised the Iona and Eumelan in unmeasured terms, and Dr. Grant took good care to have his letters disseminated. His expressions in regard to the Eumelan were about as follows: The vines had been on the way for two weeks, before they arrived opposite Portland. It took then two weeks more to make the journey from the Pacific railroad to

Portland, a distance of say *four* miles, and after all these "adventures by flood and field," they were planted by the worthy (?) Doctor, late in the season, and then made the astonishing growth of thirty well-ripened eyes of wood, which, of course, was abundant proof of the inherent health and miraculous vitality of that extraordinary grape. Now, the *truth* about that wonderful vine is, that our friend Miller saw it at Dr. Hyde's in the beginning of September. It had then lost all its leaves, and had made a growth of about two feet.

Comments are unnecessary. We leave it to our readers how far they will place reliance in the statements of this gentleman (?) in future.

THE CHEMISTRY OF WINE.

BY CHAS. H. FRINGS.

We come now to the nitrogenous substances contained in the must, and the changes to which they are subjected during fermentation. These substances have been called by a general term, *gluten*, and although the chemist makes a difference, this is all sufficient for practical purposes.

Without the presence of gluten, in the must, there could be no development of lees. It is therefore a very necessary ingredient of *must*; but in *wine* it is, not alone superfluous, but even injurious. As long as the wine contains gluten, it is subject to continual changes, which often are very injurious, even ruinous.

Both substances, gluten and tannin, if contained in the wine, continually strive to unite, (by which process they become insoluble), and then form a deposit in the lees. This process, which is very beneficial to *white* wine, is in so far injurious to red wines, as it discolours them.

If, therefore, a fermenting fluid contains more gluten than is necessary for a rapid and thorough fermentation, it is injurious. It is, however, an established fact, that all grapes grown on rich, vigorous soil, contain an excess of nitrogenous substances, which, however nourishing they may be, should not be in *wine*, and as long as it contains them

we can not call the wine *finished*. In olden times many means were employed to extract the superfluous gluten, and very often kept as secrets: such as additions of lime, salt, etc. A more rational method is the process of sulphuring the casks, before fermentation commences, which is generally adopted in Champagne, for those musts from which sparkling wines are made, as it is of the utmost importance in sparkling wines that they should not contain any fermenting substances; because these would either burst the bottles, or make the wine cloudy.

It is also adopted on the Rhine, for red wines, and the result is an excellent wine, which will keep very long.

All these manipulations are superfluous, however, if all ingredients are contained in the must in due proportions; and where it does not contain them naturally the missing substances may be added—a subject to which we shall in due time return.

To divest the wine of gluten, after fermentation, there are also many methods, which, however, should be applied with great caution. Among these are oxydization by air treatment, heating, etc., which will be fully discussed in their proper places.

Additions of chemicals, such as sulphate of lime, so often used in refining of cider, etc., are very injurious to wine, and should not be used. Those methods of fining wine, which are now so common in use, as gelatine, isinglass, filtration, etc., dispose only of those substances which have already become insoluble, and which are apparent to the eye. Wine which has thus been clarified will become cloudy again, as long

as it contains dissolved fermenting substances. The method to clarify wines by exposing them to cold, leads to somewhat the same result. If the temperature is reduced to about from 40° to 25° F., young wines will not ferment any further. The insoluble particles of gluten yet dispersed in the wine will sink to the bottom. At the same time, however, nearly all the tartar, which would be deposited later, as insoluble, is now cast out. Thus it comes, that wines which were bottled in a warm temperature will deposit tartar, and with it gluten, when they are put into a cold cellar, although they may have appeared perfectly clear. If they are removed to a warmer temperature again, the deposit will dissolve again, and the wine become clear.

Although it must therefore be admitted that the cooling of wine, or its storing in cool cellars, is of use, as far as it facilitates the deposit of tartaric acid, the benefits derived from it are still not important enough to justify the building of expensive cellars, especially as the wines grown in many sections of this country contain but little *crystallized tartaric acid*, in the form of tartar, but mostly free acids. The greatest quantity of tartaric acid, in its crystallized form, is contained in California wines, which may almost be called a saturated solution of tartar. The more kali a certain soil contains, the greater will be the amount of tartar in the grapes grown on it; while those grapes grown on soil which contains but little kali have more *free acid*, which is more perceptible to the taste.

To be Continued.

From Tilton's Journal of Horticulture and Floral Magazine.

TREATMENT OF THE AMERICAN GRAPE-VINE.

BY EDWARD F. UNDERHILL, BROCTON, N.Y.

The question of the proper method of planting, training, and pruning the native grape-vine of America, is one of especial interest and importance to a large class of our people who have invested their means in vineyards. In the text-books on grape-culture, in the horticultural journals, and in the remarks of grape-growers at their meetings for discussion, the subject is discussed, and the most diverse opinions and views are expressed: and, unable to arrive at a definite conclusion as to the merits of the different theories propounded, the practical grape-grower is compelled to grope blindly in the dark until a tedious and often costly experience shall suggest to him the proper course he shall pursue in the management of his vineyard.

Before stating the results of personal observation on this subject, let me briefly recur to the early history of vineyard-culture in America. Our first experiments were with the foreign vine, and these signally failed; and it was only when the Isabella and Catawba were discovered and disseminated that our people believed we had native grapes of sufficient merit to justify their culture in vineyards. In many localities, there was a desire to try the experiment; but the people had only indefinite and crude ideas of the manner in which vineyards should be laid out and managed. Hence information was sought of those who had been in the vine districts of Europe, and especially of the Germans

and French who had taken up their residence in America, and who could state, with more or less intelligence and particularity, the methods pursued in cultivating the vine in Europe.

Close planting is a marked peculiarity of the vineyard-culture of Germany, the vines being usually placed three feet asunder in each direction; making nearly five thousand vines per acre. In North-Eastern France the distance is scarcely over a foot, and nearly forty thousand vines are required to plant an acre. The reason ascribed for pursuing this method is the thinness of the soil, and the consequent necessity of circumscribing the growth of both root and vine; and, in the Champagne district, the latter is never allowed to attain proportions beyond those of a shrub tied to a small stake.

Having only the methods in vogue in the vine-bearing districts of Northern Europe as examples, our earliest vineyards were generally laid out and managed in conformity therewith. Mr. Longworth planted his first vineyard of Catawbas only three feet apart in each direction; and, though he subsequently increased the distance to four feet, I am informed that he regarded that as the extreme limit of departure which should be made from the European models. At North East, Penn., Mr. William Griffith planted a large vineyard with vines four feet by six. At Westfield, N. Y., a German has a vineyard planted three feet by

three. Buchanan, one of the earliest, and Mead, one of the latest writers on grape-culture, recommend four by six feet as the extreme distances; and I do not recollect any text-book which suggests a distance greater than six feet in either direction for planting in vineyards.

But, however closely our vines were planted in early vineyard cultivation, the experience of practical cultivators soon demonstrated that the American vine required more room for growth, if the best results were to be attained; and, from three feet by three, the distance has, from time to time, been increased, until, now, eight feet by eight is more commonly adopted than any other, where the vines are to be trained to wire trellis.

But there was one locality in which vineyard-cultivation was commenced nearly thirty years ago, and where the planters were far removed from outside counsel. They were compelled to study the nature and habits of the vine, and thus deduce methods for its treatment. Extending south-west from the head of Canandaigua Lake in the State of New York, a distance of several miles, is Naples Valley, which, to-day, has over a thousand acres of vineyard on one of its sides. Hills a thousand feet in height enclose it; and there, for many years, the American Neapolitans lived secluded from the world. The Erie Railway, a branch of which is now but six miles distant from it on the west, was then undreamed of. No steamboat was launched on Canandaigua Lake to facilitate communication with their transmontane fellow-beings. The cumbersome stage-coach, clambering over

mountain-roads, brought them intelligence of the scandals and the gossipings, and the disorders and the crimes, and the convulsions, social and governmental, native and exotic, which, in those days, sorely tried the temper of the sons of Adam on this mundane sphere. There they lived, had their periodical spasms of politics, voted the regular ticket, got married, multiplied, and did a good many things in a peculiarly Ameriean way; for, isolated as they were, the injunction of the Father of his Country to "beware of foreign influence" was to them a work of supererogation, because "foreign influence" had no special desire to encounter the perils of stage-coach navigation on bad mountain-roads to make itself felt upon the manners and customs of the citizens of Naples Valley, N. Y.

Thus it was, that in the year of grace 1840, when Mr. McKay, an intelligent lawyer, determined to plant a vineyard in that region, he had no one who had ever seen a vineyard to give him counsel and advice. Arbor and garden training on high trellises were the only methods in vogue in grape-culture of which he had any knowledge; and, in planting an acre of Isabella vines, he put them in the ground a rod apart in each direction, —a system of planting which required a hundred and sixty vines for the acre. And, to make sure that his ground should be rich enough for grapes, he took advantage of the fact of a drove of cattle dying in the valley from some malady, and dug deep pits in the ground he intended for his vineyard, in each of which he placed the carcass of an ox, refuse bones, and leather-

shavings, and over each carcass he planted a vine! He made his trellises seven feet high, and they were soon completely covered with the vines. For a time, he gathered good crops,—once, as much as six tons from the hundred and sixty vines planted on that acre of ground. But, as the roots grew rank in a soil of such excessive richness, Nature employed its forces in endeavoring to restore the equilibrium between vine and root; and the result in later years has been a redundancy of wood and foliage, and but little fruit.

During subsequent years, as the methods pursued in other vineyards became known, the wide plaiting in the McKay vineyard was the subject of considerable criticism; and this was not without its effect upon those who afterwards established vineyards in the valley. And though never tolerating the plan of close-planting, yet the Naples people did lessen the distances, in many instances, to twelve feet by twelve. But the example of high training, however, was followed; and the general height of the trellises is from six to six feet and a half. With the room thus accorded to the vine to grow, the necessity of summer-pruning was scarcely ever felt; nor, indeed, was it introduced until a few years since, when Germans found their way into the valley, and planted vineyards. But the contrast between the fruiting qualities of theirs and their neighbors' vines soon caused them to discontinue, or to greatly modify, the extent to which they practiced that system of pruning.

In connection with the facts I have stated, I will add that the vineyards

of Naples Valley, notwithstanding the excessive rain-fall of the summer, are to-day more healthy and better loaded with fruit than any I have seen on an extended tour through the vine districts of New York State and the shore of Lake Erie; and though there was some rot among the Catawbas, there was not enough to prevent a fair crop.

It would seem to those familiar with the general practice in planting vineyards, that a distance between the vines of twelve feet by twelve, requiring but three hundred and two vines to the acre, would certainly be sufficient to satisfy the most extreme advocates of wide planting. But experience at Naples Valley has shown that even a greater spread on the trellis may be necessary to insure the production of fruit. It is a common remark among practical vineyard-cultivators, that for the rank-growing varieties of grape-vines, like the Isabella, Catawba, Concord, Diana, and Clinton, a lean, poor soil is essential; and that the use of fertilizers, except in extreme cases, tends to increase the growth of wood and foliage, and to diminish the production of fruit. While, under certain circumstances, there is a phase of truth in this statement, yet facts which have transpired in Naples Valley have shown, that, under other circumstances, a very rich soil may be profitably used in vineyard-culture, if other prerequisites are at hand.

Some years since, Hon. E. B. Potter, President of the New-York State Grape-Growers' Association, found an Isabella vine on his place from which he had been unable to get any fruit. With nearly thirty acres of vines in

successful bearing elsewhere, he could only attribute his want of success with this to the richness of the soil in which it grew. Though the vine had a spread of twelve feet on a high trellis, the shoots made extravagant growth. Thinking that this untoward tendency of the vine in not fruiting might be owing to its being restricted in the space it required, he determined to try the experiment of giving it a spread of twenty-four feet on the trellis. The result was like magic. The vine soon covered the space given it; it was no longer difficult to be kept under control; and, the next season, it produced a crop of nearly a hundred pounds of excellent grapes, and has continued in well-doing ever since.

To still further try the merits of the system, he this year took out alternate vines from a certain spot in his Isabella vineyard where but little fruit had been produced of late, leaving each vine twenty-four feet of trellis to cover; and in this instance the vines have become largely fruitful. In another case, he allowed the vine to run twelve feet upon one side of the stem, but on the other side kept within a space of six feet on the trellis. Where the additional space was given the vine, there will be a yield of about forty pounds of grapes: on the other side, there will not be more than ten.

I was shown still another illustration of the working of this method of wide planting and high training on a rich soil. As previously stated, the McKay vineyard has lately borne but little fruit, by reason of the large amount of fertilizing material put into the soil at the time of planting. At the suggestion of Mr. Pottle, the present

owner of the property last spring removed alternate vines from certain rows, leaving the remaining vines thirty-three feet apart in the rows. Here the result was the same. Though the trellis is not yet fully covered, the vines will each yield from a hundred to two hundred pounds of fine, showy clusters of grapes; while on the adjoining rows, where the vines are but sixteen feet and a half apart, there will not be over twenty pounds of indifferent fruit to each vine.

If, from the facts I have here presented, there are any laws to be deduced, of practical significance in vineyard-culture, they are these:—

1. The normal growth of a grape-vine is in proportion to the richness of the soil in which it is planted.

2. When the root has so far increased in its size as to disturb the relative proportion which should exist between it and the vine, it will spend its energies in endeavoring to restore the equilibrium by an increased growth of vine, the efficiency of which will be seriously impaired for bearing fruit.

3. The distance to be observed in planting vines along the line of the trellis must depend upon the richness of the soil.

To this system of wide planting and high training (the result of which, as presented, are beyond dispute) I have heard but a single objection or criticism. A gentleman of large experience as a grape-grower and wine-maker in this country has asserted to me that grapes grown on vines thus treated are inferior in quality to those which are grown on vines closely planted; and that, for use in the manufacture of wine, they are especially

defective in not possessing the necessary saccharine properties. As this is purely a question of fact, it can only be determined by a practical test; and arrangements have been made by the New York State and Lake Shore Grape-Growers' Association to have the musts of grapes grown under these different conditions tested this fall by the must scale.

But, besides the wide planting and high training peculiar to the vineyards of Naples Valley, a resident grape-grower, Mr. A. J. Byington, has for many years practiced a system of pruning peculiar to himself, which, in connection with wide planting, has been attended with the most marked success. As the system is the result of intelligent study and observation, I will endeavor to state the theory upon which Mr. Byington proceeds.

During the season of growth, Nature has pushed out from each bud left on the vine at pruning a shoot, from which laterals and even sub-laterals have in their turn been produced, with leaves, tendrils, fruit, and buds. During the autumn, the green wood ripens, and forms canes: the leaves fall on the approach of winter, and there remains on the trellis a tangled mass of wood. The vine above and the root below ground are supposed to have attained an approximate, if not such an exact equilibrium as Nature would dictate. But, if the vine is to give us its best results, only a small proportion of buds on the wood of the current season must be allowed to produce fruit the next; and hence, time out of mind, the practice of pruning or cutting away more or less of the ripened wood has been resorted to.

This has been done either in the autumn, winter, or spring; and either period has been regarded as appropriate, though, in the spring, it has been held to be important not to postpone the operation until the season becomes so far advanced as to cause the vines to bleed after pruning. But, whatever done, the practice has been to cut away the wood to from two to four canes if long pruning is practiced, or to spurs if spur-pruning is the system adopted. The result of the operation is, that the normal balance between root and vine has not merely been disturbed, but has been almost destroyed; and when dormant vegetable life awakens in the spring, and a large unpruned root sends forth its sap, it finds but few buds where there should be many; and, at once, Nature sets herself to work to restore the balance. The shoots grow rank, and from these laterals push out, and the vine is difficult to control. With an abnormal growth, the shoots are necessarily weak, and the weakness of the shoot is imparted to leaf and fruit-cluster; and if, during inflorescence, there be rains, imperfect fertilization is much more likely to occur, followed by blasting of the fruit, or sloughing of the berries when farther advanced. And this system, pursued year after year, so far disturbs the course of Nature as to leave the vine a ready prey to disease.

If, then, pruning is essential to vine-culture, and yet pruning as ordinarily practiced is detrimental, if not ultimately destructive, to the vine, it follows that the prevailing systems are inherently vicious, and that some other method of pruning must be practiced to meet the requirements of grape-culture; and this brings me to the system of planting, training, and pruning adopted by Mr. Byington.

(To be continued.)

EDITOR'S LETTER BOX.

[Were we to acknowledge the many expressions of sympathy and appreciation of the GRAPE CULTURIST, which we daily receive, we are afraid our "Letter Box" would occupy the greater part of the journal. We take this occasion to thank all our friends for the kind interest manifested, and promise them we shall try to the utmost to make the GRAPE CULTURIST worthy of their patronage. In the Letter Box, we confine ourselves to answers of inquiries having a practical bearing on grape culture and wine making, and hope thus to serve their interests best.—ED.]

WALLA WALLA CITY, WASHINGTON TER., }
November 5, 1869. }

MR. GEO. HUSMANN:

Dear Sir: I am much interested in those articles on the trailing culture of the vine published in the GRAPE CULTURIST. This system, in such a climate as ours, I believe will possess some great advantages which I propose to discuss.

I will say first, however, that in a climate where rot or mildew is prevalent, such a system would surely be very disastrous. The first advantage derived from the system here would be the saving of the expense of trellises, as posts and wire are both very expensive here. Posts are worth ten cents each and wire twenty cents per pound. My experience here has led me to the practice of allowing my young shoots to grow out on the ground during the summer, and fasten the bearing canes up to a stake two or three feet high—only sufficient to keep the grapes from touching the ground; and I often allow the ends

of the vines to droop over on to the ground and layer them in June or early in July, thus making the vines pay at both ends. And during the fall, while digging the layered vines, I find fine bunches of grapes partially or entirely covered with earth, in perfect condition, except that those that are under the ground will not be properly colored. I find that the nearer the ground my grapes grow, the larger they are and the earlier they ripen; and occasionally, when the grapes are exposed to the open sunshine, they get scalded or cooked; and, at the same time, I find that grapes too much shaded do not succeed well, but are very scattering on the bunches.

I practice almost entirely the renewal system, cutting my vines down to the ground every fall, and taking up a new cane for bearing wood. Thus, you will see, I treat my grape-vines the same as raspberries or blackberries; and I find that all the long dissertations on the arms, stump, spurs, and other systems of pruning, is lopped off and chopped down to a very simple process with me: it only being necessary to cut off the old wood, and take up new instead, keeping in mind the while that as a vine extends its roots it will, from year to year, support more bearing wood, and accordingly I have more canes, or longer ones. This, to a novice, is not very definite instruction as to the amount of bearing wood; but he who raises grapes will soon discover that such a thing as telling *exactly* how much wood to leave is not easily done,

and that the only correct advice on this head is to prune "judgmentally."

I have, however, found that all old country people are inclined to prune too close, and not leave bearing wood sufficient to consume the energies of the vine, and, as a result, there will be an overgrowth of vine, and what few bunches of grapes do form will be smothered out, unless you are constantly summer pruning. We practice summer pruning, but not so much as seems to be the case with you. It consists principally in regulating the young shoots intended for bearing wood the next season, and pinching the fruit spurs where the shade is likely to be too dense.

But in my rambling letter I have ran entirely away from the subject of the trailing chain culture. My object was to give you an outline of my system of pruning, and you could see whether, in a climate where such practices succeed, the trailing culture would not likely be very advantageous.

Now, I will tell you another thing about grape-raising here. Vines allowed to run on the ground like pumpkin vines bear the very finest of fruit, and ripen perfectly and *evenly*, lying right on the ground. Why I would wish to have the vines raised at all would be to keep the grapes from getting *dirty*. Yours, respectfully,

A. B. ROBERTS.

[If you can get along without cultivating your vines during the summer, trailing chain culture may do, otherwise we see a serious objection in the necessity of disturbing them during summer, and "laying back" on the other row. Yours must be a great

country for grapes, and we would like to see it.—ED.]

MARION HILL, near Richmond, Dec. 21, 1869.

Dear Sir: Enclosed please find \$1.00 for GRAPE CULTURIST, for the year 1869.

You have my thanks for the numbers sent me. I have found them to be of great and deserving interest, and just the thing needed by the grape growing public. I really hope you will be able to make it not only a permanent institution, but a paying one.

My *experience* is not yet sufficient to justify me in urging my views of grape growing upon your readers, or I might occasionally find leisure to drop you a line. I am satisfied, however, of the success of grape growing and wine making in this section. It is to become a great business here, some day.

Dr. Jones, who has a small vineyard in my immediate neighborhood, has fruited the Concord, Iona, Delaware, *Black Hamburg*, Ives seedling, and Diana, for two years, and, thus far, no rot or mildew has made its appearance on any of them, though the Catawba, fruiting only a short distance off, was badly affected with them. The doctor regards the Iona as being very far superior to any other grape grown by him; and, in fact, it is a very fine grape, but I do not think it will compare with the Delaware, or even the Taylor, as we have it here.

I have now nearly twelve acres in vineyard, most of which will be in bearing next season, though to tell the truth, I have not done my vineyard justice the last year. I have had polities on the brain, and grape growing and polities do not consort well,

though wine and polities may. Here after, I am going to give my "own business" the preference over that of the ungrateful public. But enough.

I am respectfully, yours etc.,

G. K. GILMER.

[You must be in a favorable region for grapes, if Black Hamburg, Diana and Iona succeed there. Please let us hear from you again. We hope your vineyards will remunerate you better than polities.—EDITOR.]

BEAVER, Dec. 24, 1869.

MR. GEO. HUSMANN:

Dear Sir: I wish you to inform me whether you have any *club rates* for the GRAPE CULTURIST, separate from the one you publish. I wish to get up a club for the CULTURIST alone.

I believe I was informed by a friend of yours in St. Louis last week, that you charged less for clubs. I will take your valuable monthly for myself at any price. The information is for others. I have been in the habit of *pruning* my *vines* at all times during the winter, when I had an hour to spare. Do I injure the vines by so doing, or had I better put off my pruning until late in the winter, say month of February? By answering this, you will oblige Yours respectfully,

M. DARRAGH.

BEAVER C. H., Beaver Co., Penn., Box 17.

[For our club rates, we refer you to our advertisement. You can safely prune your vines during mild spells in the winter, though we prefer and recommend fall pruning.—EDITOR.]

HAMILTON, CALDWELL Co., Mo.,
December 21, 1869.

EDITORS OF GRAPE CULTURIST:

Enclosed I send you \$3.00, as subscription for the GRAPE CULTURIST and JOURNAL OF AGRICULTURE, to commence

with January, 1870. So far I have read the GRAPE CULTURIST with much pleasure, and wish you success to your undertaking. As you desire to hear from all your grape-growing friends, I will give you my experience, so far.

In the fall of 1868 I prepared two and one-fifth acres, by plowing and subsoiling, for a vineyard. The land had been under cultivation about eight years, and was once partly heavy-timbered and partly brush land, yielding some years as high as 75 to 80 bushels of corn to the acre. It is sloping some to the south, and protected in the north and west by timber, and lays about 150 feet above Grand river bottom. I planted last spring one acre of it with two year old Concord, the balance with Norton's Virginia, Hartford Prolific, and 150 Ives'. I bought the plants from Henry Michel, St. Louis, and can recommend that firm. I planted the vines last April, 6x10 feet, and gave them the best cultivation during the summer. Most of the vines made a growth of from 15 to 20 feet, and a few grew as much as 23 feet. I pruned back to from 4 to 6 buds in November, and intend to select 3 of the strongest buds next spring for new canes, if you think the strongest vines could stand it. Just for curiosity's sake, I let about a half dozen bunches stand, although a great many of the vines set as many as 4 to 6 apiece. Those that I let stand ripened nicely.

Intending to try a few more varieties, I ask you the following questions:

1. Will Cynthiana, Goethe and Maxatawney ripen early enough for me?

2. Where could I get cuttings of the Martha, and at what price?

Please answer the above questions, and oblige,

Yours, very respectfully,

FERDINAND ARBENZ.

[If your vines have made so strong a growth, you can safely let them bear some. The Goethe, Cynthiana and Maxatawney will ripen anywhere in the State. For Martha cuttings, we refer you to our advertisement in the December number.—EDITOR.]

“CUMBERLAND.”—I have a grapevine which I send you a plant by mail. I wish you to have it planted, and let me know what class it belongs to. (Sent by mail). The fruit is represented as good; foliage something like Scuppernong; plant stout but scrubby, would require no stakes; hardy here; roots freely from cuttings. Young wood roots at every joint if merely left on the ground. Native of banks and islands of Tennessee and Cumberland rivers, but scarce. It is to all appearances entirely different from any other species, but I am not

scientific enough to say positively. I call it the “Cumberland.”

A. G. WILLEY.

MURFREESBORO, TENN., Dec. 18, 1869.

[Thanks for the plants. They shall have a fair trial, and we will report on them in due time.—EDITOR.]

LEXINGTON, Mo., Dec. 23, 1869.

GEORGE HUSMANN, Esq.:

I adopted your plan of covering some of my vines, by throwing dirt with a spade. Last November I covered Allen's Hybrid, Ontario, Clara and Herbemont. In the spring, when I uncovered them, I found them nearly all dead except the roots. The Herbemont was cut back before covering. About one-half of the tip end was dead when raised in the spring.

Yours truly,

E. W. BEDFORD.

[Perhaps your vines were injured by frost before covering. We have never had the eyes rot in winter, but always covered before a severe frost.—EDITOR.]

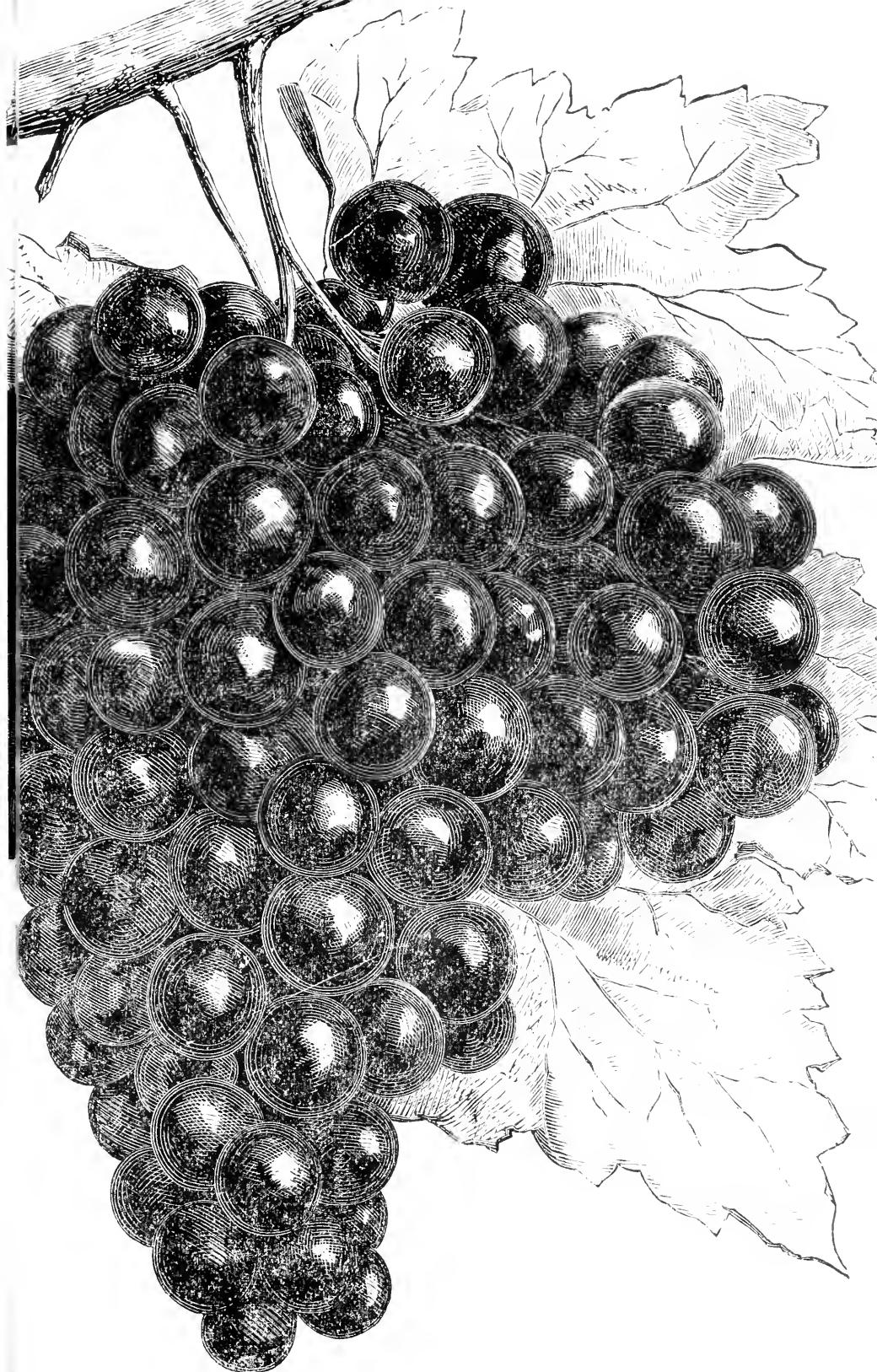
OTHELLO. (ARNOLD'S HYBRID No. 1.)

A hybrid between the Clinton and Black Hamburg, raised by Charles Arnold. Described in American Horticultural Annual for 1868, as follows: “Bunch and berry very large, much resembling the Black Hamburg in appearance. Color, black, with a fine bloom. Skin thin; the flesh very solid, but not pulpy; flavor pure and sprightly, but in the specimens we have seen, rather acid. Ripening with Delaware.”

We have seen the grape but once, in fall of 1868, and then in a very dilapidated condition, as it had been gathered some three weeks previous, and suffered a good deal from transportation

from Canada to our State. We thought the flavor then rather flat and tame, compared with the other hybrids of Mr. Arnold. We have seen the plants grow only the last summer; they mildewed slightly, but recovered after the rainy weather had ceased, and made a satisfactory growth. Should it prove healthy, productive, and of as good quality as claimed for it, it will be a valuable market fruit, on account of its large bunch and berry; and we would advise those who cultivate grapes with a view to marketing, to try it on a limited scale.

EDITOR.



THE CAROLINE GRAPE.

G. HUSMANN, Esq.,

Dear Sir:—I see by December number of GRAPE CULTURIST that our mutual friend, Samuel Miller, Esq., has discovered that “some new things have turned out to be old ones;” thus getting old grapes under new names. Just so. I too have received many a new grape, represented as of extraordinary quality, and after years of care have found them transformed into some well known old variety. In this way I have received some six or eight Isbellas, three or four Catawbas, besides fox and frost grapes not counted. But as I am simply an amateur, I find a pleasure nevertheless in thus testing all the *said to be* new grapes. 'Tis said “farmers like to be humbugged,” and it seems horticulturists are no exception.

So Mr. Miller says “the Caroline has proved to be the Coneord.” May not friend Miller have had his cuttings of Caroline mixed with Coneord? Accidents will happen in the best regulated families.

The grape I have for Caroline, and of which Mr. Miller got wood some years ago, is certainly *not* Coneord. It is true the general appearance of the vine and fruit, its freedom from disease, health, vigor, &c., resembles the Coneord very much; but still there is a difference, that any good judge of grapes will notice at a glance. In this case, we might almost say “there's a distinction without a difference.” But to describe the difference so as to be understood is beyond my command of words. I received the Caroline from a friend in Cambridge,

near Boston, Mass. He stated that the gentleman from whom he got the cuttings found the plant in the woods, and removed it to his garden. The plant with me has never been touched by mildew or any disease. The fruit always ripens perfectly. In quality it is fully equal to Coneord.

Respectfully,

J. B. GARBER.

COLUMBIA, LANCASTER CO., PA.,

December 22, 1860. [S]

[We are glad to hear from our veteran friend, and welcome him to the ranks of our contributors, hoping that he will often favor us with his views, as he is one of the oldest grape growers in the country, and no one has a better right than he to “talk and write grapes.” But in this case we must side with our friend Miller. We have not been able to see *any* difference between the Coneord and Caroline; and as friend Garber himself admits that the difference is very slight, and does not say that it possesses any quality superior to Coneord, we can not see that the grape growing public would be benefitted by its introduction. If may do for amateurs, like friend Garber, who test it for the mere curiosity and love of the thing; but we can see no practical benefit in it for those who raise the grape for *profit*, even if we grant that it is a distinct variety. It is useless to swell our already large list of varieties still more, unless we can add something which is in some respect vastly superior to anything we have at present; and we can not see that we have such a grape in the Caroline.—EDITOR.]

AIR TREATMENT.

GEO. HUSMANN, Esq.:

Dear Sir:—In your December number, page 369, your correspondent D. W. T., on "air treatment," no doubt unintentionally errs, if he states the cost of apparatus to be \$200; for \$25 pays for pump, block tin pipe, and hose, to work wine in casks of 40 to 100 gallons. Larger pumps, etc., to operate on must, cider, etc., in tanks or casks of any size, to make 20 to 40,000 gallons per month, cost only \$45. Such apparatus are at present furnished by the patentee, to ensure their proper construction, and to save vexation, time and money to those first using the process, though he don't deal in the articles. For no apparatus of a certain construction is patented, but only the mode to ferment, germinate, purify or improve, by currents of air—or other gases—which the patentee recommends to employ, for fermentation in a divided state, to ensure success. An air pump admits the use of pure air from without; the block tin pipe, bent to suit, with fine

perforations for some length, the termination stopped, has as yet been found most convenient to introduce and remove by the bung-hole of a cask, is cheap and expeditious to handle—more so than D. W. T.'s proposed arrangement, begging his pardon; faucets to each cask will be found objectionable. Any information on the subject is cheerfully and freely given by the patentee to all applicants: as well to those employing the process free for family use, as to manufacturing parties charged; for he wishes to have it fully understood and intelligently used, when the process can not fail to give favorable results.

Yours very truly,

R. D'HEUREUSE,

NEW YORK, Dec. 23, 1869

P. O. Box 6844.

[We hope to hear from Mr. D'Heureuse again, and that he will more fully explain the advantages derived from his method, as well as its proper application.—EDITOR.]

Club Rates.

By special agreement with the publishers, we are enabled to club the GRAPE CULTURIST with the following journals, at the annexed rates:

Grape Culturist and Journal of Agriculture..	.....	\$3 00
" " American Entomologist.....	.....	3 00
" " Colman's Rural World.....	.....	3 00
" " Horticulturist.....	.....	3 50
" " Zymotechnic News (English and German).....	.....	2 25

To those sending us the names and post office address of six subscribers, we will furnish the sixth copy *free*.

Vol. I. will still be furnished at the reduced rate of \$1, *complete*. To those who desire it bound, we will furnish it bound in muslin, with index and title page, at \$2.25, post paid; or they can be supplied with the cover at \$1.00 each.

Cash Advertising Terms for 1870.

TWENTY CENTS PER LINE, AGATE TYPE, EACH INSERTION.

Cover Pages Twenty-Five Cents per Line.

BUSINESS CARDS, FIVE TO SIX LINES EACH, \$15 PER ANNUM.

GRAPE VINES AND SMALL FRUIT,

Warranted Genuine and of Superior Quality, in Large Quantities, at Reduced Rates.

CONCORD.....	.....per 10,000.....	\$250.00	MARTHA, extra strong.....	.....per 100.....	\$ 75.00
".....	.....per 5,000.....	125.00	CYNTHIANA, "	.....per 100.....	100.00
".....	.....per 1,000.....	35.00	IVES	.....per 1,000.....	50.00
HARTFORD PROL.....	.....per 1,000.....	45.00	"	.....per 100.....	6.00
".....	.....per 100.....	6.00	RULANDER	.....per 109.....	30.00

For prices of all other Varieties, we refer to our **PRICE LIST (gratis)**, and to our new **ILLUSTRATED DESCRIPTIVE CATALOGUE**, containing valuable information on grapes and grape culture, which will be mailed, free of postage, to any address, on receipt of 25 cents.

A GERMAN EDITION of same, by Fr. Muench, price 25 cents (less than cost), has just been published.

Please address

ISIDOR BUSH & SON, Bushberg, Jefferson Co., Mo.

HAVE YOU GOT MARTHA?

GRAPE VINES AND SMALL FRUITS.

[Nursery Established in 1857.]

A splendid stock of Vines and Plants are offered the coming Fall and Spring, including nearly every variety known to be of value. The popular and white Grape

MARTHA, OR (WHITE CONCORD,)

In large or small quantities. Also, Arnold's new Hybrids, Eumelan, Walter, Weehawken, Christine, Hine, and all valuable numbers of Rogers' Hybrids; also, Delaware, Iona, Israella, Concord, Hartford, Ives, Norton's Virginia, etc., etc., in all about one hundred distinct varieties.

Kittatinny Blackberries and Clarke Raspberries in large quantities, Jucunda and Charles Downing Strawberries, Downing's Seedling Gooseberries, Cherry, Versailles, White Grape, and Black Naples Currants, etc., etc.

Send stamps for Illustrated Catalogue and Price Lists to

GEO. W. CAMPBELL, Delaware, Ohio.

CHOICE VARIETIES OF

Grape Vines, Strawberry Plants, Raspberry, Blackberry & Gooseberry.

Also, a few Peach and Cherry Trees, the finest growths. Particular attention will be paid to small orders of plants to be sent by mail. For sale by

SAMUEL MILLER, Bluffton, Mo.

ZYMOTECHNIC NEWS.

A MONTHLY JOURNAL

FOR

ALL BRANCHES OF FERMENTIC ARTS:
MANUFACTURING OF
Wine, Beer, Spirits, Vinegar and Yeast.

The "Zymotechnic News" will give a detailed record and discussion of all improvements which obtain publicity, both in the Old and New World. The more important ones of these improvements will be subjected to the most careful tests in the chemical laboratories and technic establishments, amply at the editor's disposal, and the results thus gained will also form part of the communications of the "Zymotechnic News."

The "Zymotechnic News" will appear both in ENGLISH and GERMAN, and the yearly subscription for each one of the two editions is but \$1 in advance.

ONLY ONE DOLLAR A YEAR!

All Business Men standing in any practical relations to Zymotechnic Pursuits, more particularly

**PRODUCERS OF WINE, BREWERS, DISTILLERS, RECTIFIERS,
WINE AND LIQUOR DEALERS, VINEGAR AND YEAST
MANUFACTURERS,**

Ought to subscribe for a copy of the "Zymotechnic News" in order to rest assured that nothing new in the technical appliances of their pursuit will escape their notice. If but once in a while a *single* item of interest and value to themselves has been made available, the small expense of \$1 a year will have possibly been repaid a hundred-fold in a short time.

All letters and remittances are to be directed to the undersigned.

N. B. Correspondence conducted in English, French and German.

CHAS. H. FRINGS, Editor,

(P. O. Box 2,742.)

202 SOUTH FOURTH STREET.

ST. LOUIS, Mo., December, 1869.

GRAPE VINES!

The Bluffton Wine Company

Offer a large stock of thrifty, finely rooted GRAPE VINES of all valuable and popular varieties, together with all novelties in this line.

Descriptive priced Catalogues sent to any address on application to

WILLIAM WESSELHOFT, Secretary,
Bluffton, Missouri.

TOBIAS WEIGOLD, **COOPER,**

1618 Jackson street, St. Louis, Missouri.

Offers his services to Wine Dealers, as manufacturer of all kinds of casks, fermenting vats and cellar apparatus. He guarantees satisfactory work and lowest prices. Refers to some of the principal wine dealers in the State of Missouri, for whom he has made casks and vats for a number of years, and especially to the Bluffton Wine Company, No. 22 South Main street, where casks and vats of his manufacture can be seen by those interested in the business.

GRAPEWOOD **TWENTY KINDS!**

Immense Stock, especially of

**Concord, Ives, Delaware, Hartford, Iona, Catawba, Isabella,
Clinton, Rogers' Nos. 4, 15 and 19, etc.**

Cut from Bearing Vines before hard freezing, and stored in frost-proof Cellars.

Very Low for Cash. Price List Gratis.

ALSO, LEADING VARIETIES OF GRAPE ROOT IN STORE.

Can ship South safely at any time.

M. H. LEWIS, Sandusky, Ohio.

GRAPE WOOD

FOR

GRAFTING OR PROPAGATING.

CYNTHIANA.....	\$ 5 00	per 100.....	\$35 00	per 1,000
HERMANN.....	10 00	"	75 00	"
MARTHA.....	3 00	"	25 00	"
DEVEREAUX.....	2 50	"		
RULANDER.....	2 50	"	20 00	"
LOUISIANA.....	2 50	"	20 00	"
MAXATAWNEY.....	1 00	"	8 00	"
TELEGRAPH.....	1 00	"	8 00	"
CASSADY.....	75 cts.	"	6 00	"
CREVELING.....	75	" "	6 00	"
GOETHE.....	75	" "	6 00	"
IONA	75	" "	6 00	"
ISRAELLA.....	75	" "	6 00	"
LINDLEY, (Rogers' 9).....	75	" "	6 00	"
MASSASOIT, (Rogers' 3).....	75	" "	6 00	"
MERRIMACK, (Rogers' 19).....	75	" "	6 00	"
NORTH CAROLINA SEEDLING.	75	" "	6 00	"
ROGERS' HYBRIDS, Nos. 2, 8, 12.	75	" "	6 00	"
SALEM.....	75	" "	6 00	"
WILDER, (Rogers' 4).....	75	" "	6 00	"

HERBEMONT, CUNNINGHAM, DELAWARE, HARTFORD and IVES CUTTINGS, at *Special Rates.*

WE HAVE A LIMITED QUANTITY OF

WOOD FROM BEARING VINES,

From our former Vineyards at Hermann, for Sale.

All who wish to try them, will be furnished at the above rates, by addressing. Small packages will be sent by mail, post paid.

GEORGE HUSMANN,

BLUFFTON, MO.

GRAPE VINES.

ISIDOR BUSH & SON

INVITE THOSE IN WANT OF

GRAPE VINES FOR PLANTING IN THE FALL

To examine their superior stock of plants, which will be furnished in large quantities, at the lowest market prices.

Our New Illustrated Descriptive Catalogue,

Containing valuable information on grape culture, will be issued in a few days, and mailed to all applicants upon receiving 25 cents.

Price Lists gratis. Address—

ISIDOR BUSH & SON,

Bushberg, Mo.

PUBLISHED AND FOR SALE

BY

CONRAD WITTER,
ST. LOUIS, MO.

MUENCH, FREDERICK, *School for American Grape Culture.* Brief but thorough guide to the laying out of vineyards, the treatment of vines and the production of wine in North America.

MUENCH, F., *Amerikanische Weinbauschule und Weinbereitungslehre, etc.*

Either one of these books will be mailed free of postage on receipt of one dollar.

HUSMANN, GEORGE, *The Cultivation of the Native Grape and Manufacture of American Wines.*

On the receipt of \$1 50 this book will be mailed to any address.

SCHMIDT, J. A., *The Diseases of Wine*, how to prevent and how to cure them, according to the doctrines of M. Pasteur.

This book will be sent, free of postage, on receipt of \$2.

C. WITTER keeps a large assortment of books treating on the Culture of Grapes and Manufacture of Wines.

Catalogues sent on application. Please address letters,

CONRAD WITTER,

122 S. E. corner Walnut and Second Sts., St. Louis,

THE
GRAPE CULTURIST.

VOL. II.

FEBRUARY, 1870.

No. 2.



THE WILDER GRAPE (ROGERS' HYBRID No. 4.)

THE WILDER GRAPE (ROGER'S HYBRID No. 4).

Of all the many hybrids grown by Mr. Rogers, there is none, perhaps, more generally disseminated and appreciated than this. And as a table and market grape, it fully deserves it. We know of no black grape which is better qualified than this to rule the market, while the vine seems to be cosmopolitan in its habits, and as it also ripens early enough for the North and Northeast, we think it deserves to be generally planted. The cut which we have chosen for our illustration, we consider a perfect representation of a *medium* sized bunch, although it is often cited as an illustration of Agawam, or Rogers 15. We have often seen larger bunches, however.

Originated with Mr. Rogers, of Salem, Mass., a hybrid of Black Hamburg and the wild Fox grape, and

named by him in honor of that veteran pomologist, Marshall P. Wilder.

Bunch, medium to large; shouldered moderately compact; berry very large, round, black, with fine bloom; flesh tender, sweet, very juicy and luscious, of very good though not strong flavor; skin thin, hangs well to the bunch. Of all large berried *healthy* varieties, we think this decidedly the best in quality for table and market, while its handsome appearance and good keeping will insure it a ready sale. Ripens with the Concord; vine a vigorous, handsome grower; productive and healthy, which seems to succeed almost anywhere.

For wine, we do not think it as desirable as Goethe, but think it will make a wine of at least fair quality.

EDITOR.

FEBRUARY.

WORK FOR THE MONTH.

February is, for us here, one of the most changeable months of the season, and generally we can not do much in the ground yet. For our Southern brethren we suppose this and the following are the months for planting and preparing the ground. In regard to this, we will give a few rules, which we think should have due consideration, in a separate article.

Pruning may still be continued if not finished, as it should be, in the fall. In the South, we suppose put-

ting in cuttings will be in order, and it may even be done here, if the frost is out of the ground. For these, choose a rich and deep piece of soil, thoroughly pulverized by repeated deep plowings, which should have been done in Fall. Harrow and level well, then stretch a line along its whole length, and if your cuttings are nine inches long, take a spade and open a cut with it along the line, opening the cut above by moving the spade backwards and forwards. Now

push down the cutting so that the upper bud is even with the surface of the soil. Then press the earth firmly against the cuttings with your foot. We plant them about an inch apart in the row, and the rows three to four feet, so as to admit of easy cultivation with a plow and cultivator. If you have plenty of material for mulching at hand, such as old saw dust, spent tan or leaves, it will be found of great advantage.

Trellis may also be erected during this month, but do not perform any of those operations unless the ground be dry enough. It is highly injurious to the soil to work in the vineyard when wet, as it will cause the soil to bake.

Grafting the vine may also be done during mild weather, and we think the generality of our readers will have better success with the old cleft graft-

ing than with any other method. Dig away the ground from the vine you wish to graft, then pick a smooth place, at least one inch below the surface, cutting the stock there with either a sharp knife or shears, and then split the stock as in common cleft grafting. Cut the wedge on your scion rather long, or better still with a shoulder on both sides. If the stock is strong enough to hold the scion firmly, no tying is necessary, but small stocks may be tied with bass wood bark or woolen thread, wound firmly around the whole length of the cut. No grafting wax is needed, but the moist earth should be firmly pressed around the cut, and the whole scion covered with sawdust or tan bark. The scion need not be longer than one to two buds, and we prefer medium sized wood for them.

PREPARATION OF THE SOIL FOR VINEYARDS.

When we commenced grape growing, about twenty years ago, it was thought indispensable by vintners to trench the soil with the spade, to the depth of from twenty inches to three feet, inverting the soil, bringing the subsoil on top, and burying the surface soil below. This was not alone a very laborious and costly operation, but also made laboring in the vineyard during wet spells in summer entirely impracticable, as the clay subsoil brought to the surface would stick to the feet, and clog. The rich surface soil would thus be buried underneath, away from the influence of sun and air, and the vine

forced by deep planting—say fifteen inches, at least—to root in it instead of nearer the surface.

This seemed to us perverting the nature of the vine, the most sun-loving of all our fruits, and set us to thinking; and after a good deal of thought, and observation, we arrived at the conclusion that the system was altogether wrong, and injurious instead of beneficial to the health and longevity of the vine. When we observed the wild vines of our forests, we found that they invariably rooted near the surface; yet we found among them veterans which had climbed to the tops of the tallest

trees, were over six inches in diameter, and yet showed no signs of decay, but looked as if they could live and flourish for centuries to come. We could see no reason why it should be considered injurious to nearly every other fruit tree, to plant it deep, and the contrary should be the case with the vine: even to such an extent that the so-called "dew roots," or surface roots, should be closely cut away each spring. We experimented first with the latter practice, by abandoning it on some rows in the vineyard, and found no difference in the *health of the fruit*, while we remarked a wonderful increase of vigor and health in favor of the vines not root-pruned. We then set to work in earnest to extend our theory also to the preparation of the soil, and the planting of the vines; and, to begin at the beginning, we made the cuttings from which we grew our plants nine to twelve inches long, instead of fifteen to eighteen, as the old practice taught. The result was magical. We found that the lower bud of our short cuttings threw out numerous strong and substantial roots, instead of the thin slim roots distributed over every joint on the long cuttings; and the short cuttings made double the growth of wood of the long ones.

Next came the preparation of the soil. We had a piece of wild forest land to prepare, in the spring of 1861. We had this carefully grubbed, all the trees and stumps taken out, and then bought a strong breaking plow, adapted to the purpose, with a strong straight colter to cut the roots. To this we put three pair of strong oxen, and plowed with it as deep as we could—say a foot—keeping a couple of men

with axe and grubbing hoe ready to cut such roots as the team was not able to break. This was followed with a Moline subsoil stirrer, which is nothing but a flat, thick, somewhat triangular share, running at the bottom of the furrow, a strong colter in front to cut the roots, and an adjustable wheel to regulate depth; to which two pair of oxen were attached, and which only loosened the soil, without turning it or bringing it to the surface. Thus we could loosen the soil at an average about eighteen inches, and the whole labor, harrowing and gathering the roots included, cost us about \$25 per acre, instead of \$80 to \$120, which we would have had to pay for trenching with the spade.

Our old vintners, of European experience, shook their heads at the "foolish innovator," as they were pleased to call us, and prophesied a speedy decrease of vigor of the vines, and their failure in a few years. It was unheard of to them: their fathers, and their grandfathers before them, had always trenched, planted deep, and cut dew roots; and when, instead of fifteen inches, we planted our vines but nine to ten inches, it could not succeed, but must fail very soon. But we are happy to say, their prophecies are not fulfilled. The vineyard thus planted, now nine years old, has not only produced more and heavier crops than almost every other one in the neighborhood, but shows no decrease of vigor; and something like four thousand gallons of wine were made from the original three acres thus prepared last fall. Nay, it has led most of the vintners of the neighborhood to follow the pernicious example thus given, and now the spade is sel-

dom used in the preparation of vineyards, except in very tough clay or stony soil, where the plow cannot be used. And a further benefit, and a very important one, resulted from it: in wet seasons we could summer prune and tie, whenever there was a day of fine weather between the showers, instead of wading in the mud as our neighbors had to do, which enabled us to perform these important operations at the proper time, and to keep well "up with our work."

Having demonstrated by actual experience that "our method" is a success, we would recapitulate a few conditions of success:

1. Have your ground well cleared of all unnecessary incumbrances, as stumps, trees, stones, etc., to enable you to plow thoroughly and well.
2. Stir your soil thoroughly, and to a uniform depth, so that the roots can penetrate at their pleasure, and not

"seek it under difficulties." This will also, in a measure, drain it. If you can plow in fall so much the better, as the action of the frost will make it loose and friable. But leave it in its natural position. Of course, locations with very tough clay subsoil can not well be prepared with the plough; but we doubt whether they are well adapted to the culture of the grape, even when thoroughly trenched.

3. Plant the right kind of plants—strong, well-rooted one year old are the best; and do not plant deeper than nine to twelve inches, spreading the roots well.

4. Cultivate thoroughly afterwards. Do not think you have performed your part when you have planted well, and your vines can now take care of themselves. If you have done all this, and your location is a good one, you may be confident of success.

EDITOR.

NOTES ON "CAUSES OF FAILURES IN GRAPE GROWING."

MR. EDITOR:

Our mutual friend G. G. (in the December number of the GRAPE CULTURIST) "ventilates" a part of my essay under the above title, and gives vent to his indignation at my warning example, Mr. S., who had spent ten thousand dollars without coming near reaching success, and therefore, in his opinion "knew just enough to hitch the horse behind the car."

Although I had simply and clearly endeavored to show that the mere cost "*per acre*," of preparing the ground, planting, trellising, etc., of

a vineyard, does *not* form a *sufficient* basis of calculation for the capital required, "unless you have already paid for the land, built your house, made your fences, etc.; although I had quite distinctly endeavored to warn "persons accustomed to *different* pursuits" who have heard that grape-growing was "a pleasant and profitable business" and may go into it "with high expectations;" although I had expressly stated in my remarks on this subject, that "experienced farmers; men who are used to rough it, who do most of the work themselves,

etc., could get along with considerable less outlay," friend G. G., nevertheless says: "In conformity with the opinion of Mr. Bush, ten thousand dollars are not an adequate capital; how much, then, is enough to begin with?"

I answer, "to begin with" it requires very little, but to carry grape-growing to successful result, it requires much indeed, far more than men usually calculate, my *practical* friend G. G., not excepted.

I had also justly apprehended that the expenses of my friend S—, as stated in the accounts furnished, (GRAPE CULTURIST, Sept., 1869, pages 273, 274), may seem too large to other farmers, especially to those *who do not keep accounts*; and Mr. G. G. has only furnished the proof. A word about those accounts may perhaps be useful, even to such practical, prudent and economical men as my friend, G. G.

He need not have confessed that he did not scrutinize said account of expenses very closely; the fact that he wonders how the wide range which is allowed for "fare to town and incidental expenses," can be compatible with close economy—when this very account shows that the *entire cost of living*, the household expenses for three years, 1866, 1867 and 1868, including supplies, clothing, books and papers, *besides* fare to town and other incidental expenses amounted to \$1925, or to about \$650 per year,—proves that he has, indeed, not been very particular in scrutinizing said accounts.

Is it still a mystery to friend G., how Mr. S—, with his wife, and who formerly used to live in the city, could

even with proper economical management spend that amount?

Had friend G. scrutinized more closely before he attempted to ventilate, he would have calculated that two hands for three years at \$30 per month (including board) come to \$2160, and that the amounts noted by S— for clearing and all vineyard labor does not exceed two thirds of that amount; and he would then not have asked: "Are these amounts to be included in the wages of the regular hands or have they been paid for extra labor?" They are not only all included in these wages, but nearly one third of them form part of the amounts noted as expenses under the various other accounts.

Nor can Mr. G., have built and kept account of the cost, especially in the years 1866—1868, if he supposes that "a stable sufficiently large for his small stock with room enough above for storing of fodder, etc., would not have cost over \$200."

Those who do not merely note their expenses, but keep book and properly distribute or classify their expenses and charge each to its proper account will better understand the statement of Mr. S—, and will scarcely charge him with extravagance.

Those who calculate the cost of vineyards per acre, make an allowance for the labor required just so far only as the planting and the cultivating may necessarily engage your time or that of your hands. But you hire your regular hands by the month if not by the year, and you have to pay and board them even if there be, for short intervals, no work to be

done in your vineyard; there are days of rain; you set one hand for a day at sharpening tools, etc.; there is a dollar to be charged to tool's account, the other you send to the blacksmith, to shoe your horse, to repair your wagon or plow; there is another dollar to be charged to either stock or tools; you avail yourself of a time when the ground is too wet to be worked in the vineyard, and set your two hands and yourself to make a convenient road from the grape hill down to your house; friend G. will certainly find this very prudent, but having no idea of keeping account, as Mr. S— does, who charges the wages for those days to Roads and General Improvement account, he wonders at the amount spent for roads, which he thinks "would have more prudently been postponed until there was a show for revenue."

That men like friend G. are better fitted to start a vineyard from the woods than friend S—, I never disputed. I have so stated in my essay; but to *one* man like Mr. G. we find a dozen like Mr. S—, and men by far less fit than he was, to start a vineyard, with too high expectations of future profits, with too low estimates of the cost; both not unfrequently based on the writings of such eminent and enthusiastic grape-growers, but poor calculators, as I had quoted in my article (GRAPE CULTURIST, Sept., 1869.) And while it is for my own interest, as a propagator of grape vines, to encourage men in grape-growing, I feel it a duty to warn the *inexperienced* of the dangers of failure; and my pecuniary interest cannot deter me from doing it.

ISIDOR BUSH.

THE SCUPPERNONG GRAPE AND ITS WINE.

EDITOR GRAPE CULTURIST:

Sir—I beg the favor of a reply to your strictures on my article published in your valuable journal, in October number, which I did not receive until last week. I fear injustice will be done our favorite, the Scuppernong, without it.

Your complaint of the length of my article is just. The article was intended more for a general than a tabular statement, and it seemed difficult to do the subject justice in a shorter one. Perhaps I should fall a snake or so (not more) in "the half mile scent."

It is apparent from the article, 1st, that grape culture and wine making are in their infancy here; and 2d, that from the small quantity of grapes and the number of birds and pillagers we were compelled to gather our grapes too soon. Such, of course, will require sugaring. Much allowance should be made.

You say I have very little conception of true wine, if I think one and one-fourth pounds to the gallon must be very little, what would you say to two pounds?

Nature, as you will concede, seldom produces a strictly normal wine.

Hence saccharometer, acidimeter and gallizing. Things not unknown at Hermann in your time, and I presume at Bluffton now. Mr. Husmann, in his book on "The Cultivation of Native Grapes and Wine," says: (page 169.) "After my purchasers have tasted my wines they generally, with very few exceptions, choose those which either have been *gallized in part, or entirely.*" Having read that book (with great pleasure) on that subject I am a little surprised, after so much is there said and quoted in favor of it from Dr. Gall, at being pitched into so roughly, because I put sugar in at the first, without the water.

As we approach the warm equatorial regions, fruits and flowers increase in the richness of their taste and hues, and *vice versa*, as we go toward the poles. By this, nature engenders and fosters a different taste in the inhabitants of Northern and Southern countries. Thus the people of Italy and France love sweet wines, champagne, etc., whilst the more northern Germans luxuriate in sour wines and lager beer. The people of the southern States ridicule the northern taste for sour and weak wines, and they ours for sweet wines with great body. You place the Delaware at the head of your list for sweetness, we the Scuppernong as first, and the Delaware as second.

You say the perfume I ascribe to the Scuppernong is "too much of a good thing, decidedly." There are some perfumes which are sickening, some feminine, but others which seem divine. Of this latter character is that of the Scuppernong. It never clogs nor tires. I never met but one man who was not fond of it.

On the subject of fermenting, you are a little severe. There are 6° of latitude between your place and mine. Your Summers are consequently shorter, and most of your grapes ripen in August and September. Our Summer grapes, (*vinifera aestivales*) ripen in June and July, and will not remain on the vines, and August and September are our hottest months. Without great body it can not, during that time, resist acetic fermentation. Mr. H. (page 141), says the temperature of the fermenting cellar should be 60° . Others say 80° . And all agree, after fermentation, wine should be kept in a cellar of 45° . The temperature of my cellar in Summer, though seven feet deep, protected by my residence and a dense shade, ranges from 62° to 75° . I have no remedy but to give my wines greater body. To do this we must use sugar or spirits. The sugar we have in its purity, and prefer to use it to *gallized whisky or brandy*. Our people have been accustomed to the highly spiritualized and sweet wines of Europe, and such is agreeable to them.

The difference in the tastes of your section relishing weak and sour wines, and that of our relishing sweet wines with great body, will, in all probability, exclude our wines from your markets, and yours from ours for all time. The two sections will scarcely be rivals.

You say, "few people can wait eight or ten years for a crop, and yours scarcely three." This is *apparently* a home thrust. We have been in the practice of setting our vines thirty to thirty-two feet each way, and it takes the vines eight to ten years to cover

this space, when the vines come to their greatest bearing. But we, by way of cultivating them, raise corn, cotton, and potatoes, in the spaces for the first years, which compensates, in a great measure. There is another plan which I have frequently suggested, and which should be followed when we follow nothing else, viz: plant your vines ten by twelve feet, and thin out as they spread to crowd each other. I have cultivated the Bunch Grape and Scuppernong, and speak experimentally, that at three years old the vines of the latter will produce as many berries, vine for vine, as the former, whilst every year after the quantity increases in favor of the Scuppernong, with which we have no failures nor pruning. Dr. McII., who lives sixteen miles from me, made forty gallons of wine this last fall from one vine twenty years old, and that after the family had had free access to it for a week or two.

We may be deluded, but we think the Scuppernong a *Divine Gift*—

“Sent in the night-time of sorrow and care
To bring back the joy which the South used to
wear.”

JOHN H. CARLTON.

ELDORADO, December 18, 1869.

[We publish your article in full, as we wish to give every one a “fair chance” to explain his views, but shall make our remarks very short and concise. We gather from your former communication that you added one and one-fourth pounds of sugar to each gallon of Scuppernong must. This quantity dissolved in water would make 50° on Oeschle's scale; consequently, if the Scuppernong is so very sweet, as you assert, it would not be presuming too much to think that its must would

range as high as 80° average weight of fair Catawba. Add to this 50° would make the must range 130°. Now it is well known to all wine makers that a must ranging higher than 125° can not, by fermentation, convert all its sugar into alcohol, consequently must remain sweet. This would be exactly your case, and unless your Scuppernong must contained very little sugar originally, it must remain sweet, or rather, cordial instead of wine. Now, although we practice and still advise the addition of *water and sugar, when necessary, to the must, if done in a rational and scientific manner*, yet this would be too much of a good thing, and we say two pounds is a *great deal* too much. There is a wide difference between a *rational* practice and an *irrational* one, and there is a limit to all things. The two cases you allude to, and the practice followed, is not at all similar. We had no intention of “pitching in,” and will gladly leave you to follow your practice, if you think it is perfect, but you should also allow us to give our views about it, and not feel offended if we can not concur with you.

You are certainly mistaken if you think the French people fond of sweet wines. They consume mostly red, astringent wines; so do the people of Italy, and there is more champagne drank in other countries than in France itself. We do not know that the Northern people, *as a class*, love sour, weak wines and lager beer, nor that Southern people have a fancy for sweet wines of great body, and that each ridicules the taste of the other. The taste for so-called sweet wines or cordials is a natural transition from

ardent spirits, North or South, and the more the taste becomes purified and cultivated, the more readily will it accustom itself to *true wine*, whether the individual lives North or South. On the contrary, there are more spirits used in Northern climates than in Southern.

You may admire the taste and flavor of the Scuppernong; we do not. The only taste we had of it, was on vines of our own growing, and the berries they ripened reminded us of the bugs we sometimes get in our mouth accidentally, when picking Raspberries or Strawberries. We will admit that this perfume(?) may, with you, be much refined, as the grape ripens fully, but can hardly think we would find it "exquisite," even then.

As to the temperature of your cellar

during fermentation, if it is at 65° or even 75° it will only hasten fermentation, and need a little more care. But it will not hurt a must of *ordinary* sweetness.

We did not design any "home thrusts;" if accidentally a "tender spot" was hit by our remarks, we assure you it was unintentional. We could not gather from your remarks that the Scuppernong produced a fair crop sooner, and only imagined to ourselves what *our* people here, as we know them, would do if they had to wait for a crop eight to ten years. We sincerely wish that the Scuppernong may be the "Divine gift" you consider it, to you, but you have not yet convinced us that you should not try to get something better if it could be found.—EDITOR.]

CAN GRAPE GROWING BE OVERDONE?

In the December number of the **GRAPE CULTURIST**, in an article under the above caption, the editor, in the course of his remarks, uses the following language :

"There" (on our sunny southern hillsides with decomposed limestone soil) "the Norton, Cynthiana, Herbeumont, Rulander, Louisiana, Cunningham, and similar varieties, will alone yield their best results; and friend Engelmann *need not expect anything like it on his soil*. *The Norton's Virginia grown on the prairies of Illinois, and the wine of the same grape grown on the Missouri bluffs, will bear about the same relative merit as the common French claret when compared with choice Burgundy.*"

This is interesting and rather startling news to me; and the question, on what evidence so disparaging an assertion is made, naturally presents itself to my mind. Mr. Husmann fails to adduce any evidence; does he consider himself so high authority that his assertions require no further proof?

I am not blind to Mr. Husmann's merits in furthering grape culture and wine making, and am always ready to recognize him as an authority in matters pertaining thereto, but there are certain limits, which ought not to be approached, still less transgressed without sufficient cause and ample proof, and it appears to me, that Mr. Husmann in making the above statement has lost sight of these limits,

and has taken a position, which, according to present experiences and the present state of domestic vinology, he is not able to sustain. I will try, by reference to existing records, to satisfy the impartial reader, that the assertion lacks every foundation.

Wherever my wines came in competition with other Illinois wines, they always stood the comparison advantageously and satisfactorily, my Norton's Virginia not excepted; and whenever and wherever Illinois wines came in competition and were compared with Missouri wines, they invariably proved themselves to be their proud equals. In proof thereof I refer to the recorded transactions of the Illinois State Horticultural Society of 1868, and to those of the Mississippi Valley Grape Growers' Association at their meeting conjointly with the American Pomological Society in 1867. I could refer to other records, if they were on hand or accessible to me from my remote place of residence.

If Mr. Husmann will take the trouble to refer to the record of the Mississippi Valley Grape Growers' Association above cited, he will find, that the Norton exhibited by Mr. George Nestel, "*grown on the prairies of Illinois*," was pronounced "very good," and was the best on exhibition, while Mr. Husmann's three samples "*of the same grape grown on the Missouri bluffs, which bear (to the wine grown on the prairies of Illinois) about the same relative merit as the common French claret when compared with choice Burgundy*," came out second best with the predicate "good."

Mr. Nestel is my next neighbor, his land joins my land, his vineyard is

distant from my vineyard a few hundred steps only, it is on the same ridge, with the same southern and southeast aspect, and on the same soil!

I do not know, whether I have succeeded or not to satisfy Mr. Husmann, that his assertions were made inconsiderately, and that, whether they were intended as a "puff" of Missouri wines, or as a slur on Illinois wines generally, or on my wines specially, they are equally uncalled for and improper, and especially unworthy of the source from which they emanate.

THEOD. ENGELMANN.

LOOKING-GLASS VINEYARDS, Dec. 1869.

[We are sorry to see that our friend is so much hurt by a remark which we certainly neither "intended as a puff" for Missouri wines, or as a slur on Illinois wines, or his wines specially." Nothing was further from our thoughts, we only spoke our deliberate conviction, when we contended, that the wines grown on our southern bluffs, will rank much higher than those grown on the prairies of Illinois or Missouri either. We confess that we committed an error in not being more *general* in our remarks, for we think the bluffs on the Mississippi, in Illinois, or similar locations, just as capable of producing the choicest wines as the Missouri river bluffs, and the prairies of Missouri just as unable to produce the *best*, as the prairies of Illinois. We simply made a comparison and hope friend Engelmann will not consider it as pointing at him specially. We believe that Illinois can produce as good wines, in the proper locations, as Missouri; and thus hope we have made the "amende honorable," for the unin-

tentional omission, to the grape growers of our sister State.

But if friend Engelmann means to assert that a level prairie or nearly so, can and will produce as good wines *at an average*, as sunny hillsides, with decomposed limestone soil, we must beg to differ with him, and we think the experience of the majority of vintners, here and in Europe, will coincide with us. We do not assert this as an *authority*; we are far from believing our judgment infallible; have repeatedly stated that we do not pretend to be authority, nor do we acknowledge any others. We believe that we are all seekers after knowledge, and have a moral obligation to impart what we have found, with due regard to, and charity for, the opinions of others. But while we are always willing to accede to others the right to hold their opinion, we claim the same right ourselves.

If Mr. Engelmann will for a moment consider the vast differences existing in the value of wines growing in different locations in Europe, and that wines grown in the best localities bring fabulous prices, while those from vineyards adjoining them, but perhaps a different aspect and soil, will bring only one-fourth of the price, he must certainly grant that soil and locality exercise a vast influence on the character of the wines produced. Nor can he deny, that they have a similar influence here. We have seen the Rulander produce a wine resembling Sherry, on our vineyards near Hermann, while only a few miles from there, in the vineyard of Mr. Kuhn, it produced a Hock, the finest we have seen in this country, and which, in our opinion, could com-

pare with the choicest Briessling or Traminer of the Rhine.

But friend Engelmann cites circumstantial evidence, and refers to the report of the committees at the exhibition at St. Louis in 1867. Now the facts about the report of those committees are these: It was at a time, when the controversy about gallizing was at its hottest; the majority of the members of the committee, on red wines especially, were bitterly opposed to it, thought they could smell it in every wine which contained any sugar yet, and as the wine we exhibited then, had been made of must which weighed 126° on Oechsle's must scale, all the *natural* sugar had not been changed into alcohol, an appearance which friend Engelmann and all conversant with wine making can readily explain, but which led the committee to the conclusion that our wines had been gallized, could therefore not compete with that of Mr. Nestel, which they thought pure juice of the grape, though otherwise superior. Their verdict, however, did not prevent the sale of twenty cases of our wine to Colonel Marshal P. Wilder, at \$24 per case, who, after comparing it with the celebrated Clos Vougenat he had been in the habit of importing, at \$45 per case, said he would rather drink the Norton than that celebrated vintage. Had friend Engelmann examined the reports of those committees very closely, he could have found that *his* Norton's is marked "sour," and that the Catawba exhibited by us was graded at 95°, while that exhibited by him was marked at 87°.

But enough of this. We hope to have convinced our friend, that we in-

tended no "slur on Illinois wines generally, or his wines specially." We know him to be a very skillful and intelligent grape grower and wine maker, and attribute much of the general good quality of his wines to his superior handling. We cannot afford

to be on unfriendly terms with him, because our readers need the advice he is so well able to give, and because we esteem him too highly, personally, therefore hope he will "smoke the pipe of peace" with us, and let bygones be bygones.—ED.]

WOMAN IN THE VINEYARD.

In these days of agitation for woman's rights, when the question of female suffrage is discussed all over the land, in every journal, it cannot be expected that the GRAPE CULTURIST should be entirely silent on this very important question. But we confess that we are not entirely sure whether the right of suffrage, if extended to our lady friends, would be desired or desirable by a majority of them, nor do we intend to argue its pros and cons. We think that this question can be decided without our help, and as our fair lady friends have generally a way of their own by which they carry their point, if they really mean to do it, we think it may safely be left to them.

But we think it the duty of the stronger sex, to listen to at least and obviate one of the complaints made by our fair friends, that of insufficient and poorly paid work. We think that more ways should be opened for the solitary female, left without a natural protector, to earn an honest living if she so desires. We do not think it fair or just if a woman does the same amount of work or even more than a man can do, that she should receive less for it because she is a woman. If

we consider labor honorable, we should also pay for it fairly and honorably, and not take advantage of the weaker part, because they are weak.

If we desire, therefore, that justice be done in this respect, let us consider next how we can best obviate the evil under which many a fair female flower now droops and withers away to an untimely grave. Female labor outside of the proper home sphere, so far has been restricted mostly to the work in factories, sewing, washing and ironing, embroidery, etc. and it was almost considered a loss of caste to engage in anything else. Especially has this been the case in the South and Southwest. It was almost considered degrading for a woman to work out of doors, and those women who attempted to spend their spare time at some useful employment out of doors, thereby becoming the faithful helpmates of their husbands, were looked upon with a sort of pity, and not considered *good company*. If the farmer's daughter tried to help her aged father out of doors, she was looked down upon and despised by the high strung damsels of the neighborhood, who spent the day in reading a fashionable novel, or lounging in the rock-

ing chair, and not considered eligible matches for our fast young men.

But thank God, this false view of their true position is rapidly wearing off, and a healthier tone seems to pervade the public feeling. It is no longer considered a disgrace, if our fair friends become working members of society, and we think we see a better time coming, when the daughters of America will rival those of England and Germany in their participation of rural labors and pleasures, when healthful exercise will bring roses to their cheeks, and elasticity to their movements.

Let it not be supposed, however, that we wish to take woman away from her proper sphere, the domestic circle, or that we wish to see her the overworked drudge of hard manual labor. Nothing is farther from our thoughts. We do not desire to add a mite to the burden of the busy farmer's wife, nor do we advocate a neglect of the home duties, to further out door labor. But we wish to open new fields of light and remunerative employment to those of our lady friends who are now compelled to "sew for a living," or pass their days in the dust and din of factories, undermining their health. We wish to invite them to pure country air, and to an employment for which their nimble fingers and active hands, are better fitted than those of men. Nearly all of the work in the vineyard during Spring, Summer and Fall, is light, the tying in Spring, the pinching and Summer pruning, the tying up of the young growth, and the gathering of the luscious fruit in the Fall, is easy work, and forms the greater part of the

Summer labors, and we are sure if they once take to this labor kindly, they can do it better, and more of it, than we men, with our more clumsy fingers. We would say to the daughters of our vintners, "spend your spare time in helping your father and brothers in the vineyard, instead of killing it by reading insipid novels, or attending fashionable parties. Be in daily communion with nature; learn wisdom from her ever open book; gain health, beauty and innocence from her ever flowing fountain, and you will be made wiser, happier and better for it. Rest assured that you can well afford to dispense with those of your female acquaintances who would slight you for "working outdoors," and that those of your male associates who would think less of you because you are willing to lend a helping hand to your father or brother, are not worthy to become your future husbands and companions through life.

And to our vintners we would say: smooth the path for those lone females who must earn their daily sustenance by their handiwork, give them employment which is suitable to their capacities, and when they perform as much labor or more than a man would do, pay them fair wages. Do not give them less *because they are women*, but be liberal and fair, more so than those who now too often weave the life and strength of their poor dependents into the glittering fabrics worn by the thoughtless and gay. Teach to your daughters and sons, that labor is a blessing instead of a curse, and ennobles those who perform it faithfully, be they male or female.

EDITOR.

MISSOURI HORTICULTURAL SOCIETY.

We attended the annual meeting of this society, held at the Temple, corner of Fifth and Walnut streets, St. Louis, on the 11th, 12th, 13th and 14th of January, but we are sorry to say, were less satisfied with the proceedings than with any one of its former sessions that we attended. Too much time was spent, in our opinion, in reading elaborate essays, and we think members could be much more usefully engaged in practical discussions on fruits, their culture, varieties and their success, etc. We confess that we learned much more about our favorite fruit by private conversation with members, outside, than from the discussions and essays.

But we hope this will in a measure be obviated by the passing of a resolution Thursday evening, in accordance with which the reading of all essays will be dispensed with, but they will be referred to a committee for examination, and if found suitable and useful by them, they will then be published with the proceedings. This will save much precious time, and the essays can be read and digested at leisure at home, by the members, much better than if they were read before the society.

The collection of wines exhibited, as far as we tasted them, was very creditable to their producers, and although we found but few wines of *extra* quality, we found still less which were really poor. We give below the report of the Wine Committee, and think it a very good and fair one, as far as we have been enabled to judge,

from the samples we tried. In one point, however, we beg leave to differ with their opinion. It is in regard to the value of *white* Concord wine, and which they seem to think may yet be the white wine of the country. We cannot think so, although we have tried hundreds of white Concords. We think the Concord much better adapted to make a red, astringent wine resembling claret, than white wine, and cannot help but say that *all* the red Concords we tried there, suited our taste better than the best white samples of that grape. There is a lack of life, if we may so express ourselves, of sprightliness in the white Concord, which will fail to please the habitual wine connoisseur; it will clog the palate instead of tickling it. It may do as an indifferent substitute for the Catawba, but only until we have a better one, and we would think our hopes of rivaling the white wines of Europe placed upon a very unsafe foundation, had we to depend only upon the Concord.

We do not undervalue the Concord, we think it a sure and profitable variety, which makes a very fair article of red wine, but we do not think we do the grape growing community a service, by overrating it. There is still great room for improvement, and only by seeing things in their true light, can we hope to rival and perhaps excel others, not by saying "Eureka, we have found it."—[ED.

REPORT OF THE WINE COMMITTEE.

The committee appointed by the State Horticultural Society to examine and

report and grade the wines exhibited at the meeting last week made the following report:

Mr. President and Gentlemen:— Your committee appointed to examine samples of wine on exhibition, beg leave to report that they have performed that duty, and are glad to congratulate you upon the general good quality of all the wines on exhibition. We find upon the table thirty-three samples, which we have endeavored to grade, as in former years has been the custom of the Society, with, in a few instances, some special remark as to quality. In accordance with resolutions adopted yesterday, we grade new wines as such, and not in comparison with older wines. We also feel safe in saying that not one sample of poor wine has been placed before us. We also wish to say that the quality of all these new wines may change materially before the coming fall, and we are by no means sure that a subsequent examination might not give a different result.

No. 1. Catawba of 1869, from Chas. Paffrath, Melrose, Mo.; very promising, good flavor, and aroma; grade 85.

No. 2. Concord of 1869, from same party; grade 75.

No. 3. Concord of 1869, from same party; very fine, and best new Concord on exhibition; grade 85.

No. 4. Concord of 1869, from Cliff Cave Wine Co.; very astringent; grade 75.

No. 5. White Concord of 1869, from same party; grade 90.

No. 6. Concord of 1869, from same party; grade 80.

No. 7. Concord of 1869, from same party; very good and promising, with age to equal the best; grade 83.

No. 8. Hartford Prolific of 1869, from the same party; is excellent for that variety of grape.

No. 9. Rentz of 1869, from the same party, is a stranger that we gladly welcome as possessing qualities

that please, and if the vine maintains its present good character, will be a great acquisition. As compared with a fine article of Concord, we grade at 85, and think that when made in large quantities it would be even better.

No. 10. Norton of 1869, from same, is very fine, we grade it at 90 as new wine.

No. 11. Catawba of 1867, from J. J. Kelley, is the best of this variety on exhibition, and we grade at 87.

No. 12. White Concord of 1867, from J. J. Kelley, was considered the best of all Concord on exhibition, new or old, and we grade at 87, and would like to meet it often in our daily pilgrimage.

No. 13. Concord of 1868, from J. J. Kelley; very fine, 85.

No. 14. Concord of 1869, from F. Braches, of Gray's Summit; graded 75.

No. 15. Delaware and Catawba, mixed, of 1869, from F. Braches. We judge to have been left in the husks in fermentation, and the quality to be thereby improved; at any rate, it can hardly be excelled; 90.

No. 16. White Concord of 1869, from same; pure juice, and similar to No. 5; grade 75.

No. 17. Norton of 1869, from same; grade 85.

No. 18. Norton of 1869, from same; very palatable, and sweeter than most samples of this variety; grade 80.

No. 19. Concord of 1868, from H. N. Vories, St. Joseph, Mo.; grade 70.

No. 20. Norton's of 1868, from same; grade 82.

No. 21. Concord of 1867, from G. L. Dietsch, Waterloo, Ill.; grade 75.

No. 22. Clinton, of 1868, from E. R. Mason, Webster, Mo.; very good. We think will still improve; grade 80.

No. 23. Norton's of 1868, from same; is best of the Norton's, and grade 92.

No. 24. Hartford Prolific of 1868, from Bluffton Wine Co., like No. 8, is a very fair wine, but we can not think

it a good investment to make wine of this variety of grape when we can do so much better.

No. 25. North Carolina Seedling of 1868, from same, compared with good Catawba grades at 80; is very nice white wine.

No. 26. Clinton of 1868, from same; grade 77; will yet be better.

No. 27. Delaware of 1868, from same; grades 85; although so good, is not, we think, quite equal to what No. 15 will be.

No. 28. Norton's of 1868, from same; grade 80; was probably injured by a musty bottle.

No. 29. Catawba of 1868, from same; lacks in flavor; grade 77.

No. 30. Catawba of 1868, from J. J. Kelley; grade 82.

No. 31. Concord of 1869, from same; grade 81.

No. 32. Concord of 1869, from J. J. Squires; grade 78.

In closing this report we ask special attention of the wine-growers to the manufacture of White Concord, which is rapidly growing in favor, and may yet be the white wine of the country.

JOHN M. PEARSON,
S. MILLER,
L. D. MORSE,
E. S. HULL,
Committee.

From Tilton's Journal of Horticulture and Floral Magazine.

TREATMENT OF THE AMERICAN GRAPE-VINE.

BY EDWARD F. UNDERHILL, BROCTON, N.Y.

(Concluded.)

In planting a vineyard, Mr. Byington places his vines from eight to twelve feet apart in the rows, having regard to the richness of the soil and the character of the vine as a rank or moderate grower. His trellis is six and a half or seven feet in height, with five wires. When the vines have fully covered the trellis, and are evidently impatient of restraint, he takes out alternate vines, leaving the others from sixteen to twenty-four feet distant from each other in the rows.

During the fall or winter, he does his first pruning. It is quickly accomplished, and merely consists in cutting away some of the tangled mass of wood, but leaving three times as much as he thinks he will require. Nothing more is done with the vines until the early days of summer. In

the mean time, the buds burst, the shoots push out, the leaves develop, and the fruit-clusters appear: and, as not a few but very many buds were left to receive the life-giving currents proceeding from a large and strong root, vegetation proceeds in its normal course; and there is strength and vigor, and not weakness and decay, in the progress it has made. It is during the critical period of the starting of vegetation that Nature should encounter nothing to disturb the performance of her functions; and, this period having passed, when the clusters have appeared the time comes when the real work of pruning may be done. Then, surveying the trellis, Mr. Byington sees fruit-clusters in great excess: but this is a difficulty easily cured; whereas, in case of a deficiency, he would

have no remedy. He has the courage to cut when cutting is attended with no danger, even though scores and scores of clusters of incipient fruit are thereby made to come to nought. He removes entire canes, then entire shoots, until he is satisfied that he has just sufficient left to fill the trellis without crowding. Then from weak shoots he removes a portion of the clusters, that they may have no more fruit than they will have leaves to ripen. This completed, the canes, and from time to time the shoots, are brought up, and secured to the trellis wires. No summer-pruning or pinching is resorted to, and Nature proceeds with the work of maturing the fruit.

And, now, as to results. I refer first to the Delaware vine, because it has been regarded as *the* vine for close planting and pruning. In Mr. Byington's vineyard, *the vines were sixteen feet apart in the rows*; and from each stool, the trellis, six feet and a half high, was covered with healthy shoots and foliage. The first and second wires were literally loaded with fruit: and on the third and fourth wires there was an abundance. Upon no vine did I observe less than forty pounds of grapes, and upon many there could not have been less than eighty pounds. And, with this remarkable crop, I saw, on the 24th of August, many clusters which were more than half colored, notwithstanding the fact that the season has been most unpropitious for ripening grapes. The Isabellas, Catawbas, Concords, and Ionas, treated in the same way, showed the same result; and with the exception of the Catawbas, which were slightly affected with the rot,

they were free from disease; while in an adjoining vineyard of Isabellas, planted on the same soil, but which had been pruned in accordance with the ordinary method, both leaf and berry were badly stricken with mildew. Nor is this an exceptional year in Mr. Byington's experience; for I have been informed by most intelligent and credible authority, that, for several years, this same anomaly of heavy crops and early ripening has been characteristic of his vines.

In what I have written, I do not know that I have, in all its details, correctly stated Mr. Byington's theory; but the facts set forth are from personal observation. I will only add, that if the fruit, this season, shall, upon proper tests, prove to be equal in quality to that ripened upon vines which have been planted and pruned in accordance with the methods usually pursued in vineyards, I shall be satisfied that Mr. Byington has added much, very much, to our existing knowledge in reference to the cultivation of the native vine in vineyards.

BROCTON, N. Y., Aug. 30, 1869.

P. S.—Since the foregoing article was written, I have heard from Mr. Byington the result of his vintage. His Delaware vines, five years old, and planted sixteen feet apart, yielded an average of fifty pounds to the vine, of as choice, sweet, and well-ripened fruit as I ever tasted. His vines of the same variety, which bore this year for the first time, averaged over sixteen pounds each. An acre of Isabellas treated in the same manner has yielded him five tons of delicious fruit; and this has been by no means an exceptional year. E. F. U.

[We copy the above interesting article from *Tilton's Journal of Horticulture*, not that we endorse it unconditionally, but because we find much in it worthy of consideration; and, in many instances, a confirmation of ideas long ago expressed by us, and

followed practically, with the best of success.

We must differ with Mr. Underhill when he says: "I do not now recollect any text book which suggests a greater distance than six feet in either direction for planting in vineyards." We hardly know whether we would call our little book "Grapes and Wine," a *text book*, but others seem to consider it as such; at any rate, it may lay as much claim to that appellation as any *American* publication, and we advise 6x10 feet, as early as 1865, for all the strong growing varieties.

But while we believe that generally our American grapes have been planted too close so far, we think there is a limit to all things, and cannot see the necessity of giving vines more space than 10 to 12 feet. This will give them ample room, air and light, and here we have found six feet for the Delaware sufficient.

When the writer comes to description of Mr. Byington's method, we are tempted to exclaim: There is a grape grower after our own heart! We have long ago discarded the close pruning of the Cincinnati and old German and French school, and have, year after year, pruned longer, until we have been regarded with horror by those who consider close pruning essential to the longevity of the vine. We refer our readers to the article on "Pruning the Vine" in the November number, where they will find that we advise long *pruning*, giving the vines plenty to do, thus arriving at about the same conclusion as Mr. Byington, that we should leave plenty of wood to receive the flow of sap in spring. But our method goes still a step far-

ther. We do not wait until the clusters have bloomed and formed, but we remove the superfluous as soon as they appear, when we have our pick and choice, and before the shoots have fully expanded. Thus, we lead the energies of the vine into its proper channel. We need not cut, because the young shoots or bunches are easily removed with the thumb and finger. There is no disturbing of the functions of the vine, and we can select the finest and most vigorous shoots and bunches. This we follow with the pinching of the young fruit-bearing shoots, just beyond the last bunch we wish to leave, and we do this early enough to make the use of the knife entirely superfluous. Our experience of last summer fully confirms us in the idea that most of our American grapes are pruned too long, as the Concord generally did not rot as badly on vines which were pruned long as on those pruned too short. But, in following this method, the operator must not be sparing of bunches. He must have the courage to take away all those he thinks are superfluous, and not be induced by an ill-timed pity with the young fruit, to leave *more* than its mother—the vine—can bear.

By planting somewhat farther apart than has been done so far, by long pruning in the fall, and by close rubbing out and pinching early in the season, by continued experiments *how far* this should be carried, we may hope to arrive at the proper method of managing our vines correctly, and in the closest accordance with nature's laws. We hope all of our readers will experiment with this object in view, and give us the result of their experiments.—ED.]

PLANTING AND PRUNING.

From the proceedings of the annual meeting of the New York Grape Growers' Association, held at Rochester, 18th ult., as reported in the *Rural New-Yorker*, we make the following extract on the subject of planting and pruning and their relation to the grape rot. We have not space for comments in this number:

President Pottle called for experience. He remarked that it was claimed that close planting destroys the natural balance between the root and top of the vine, and induces disease. Wide planting conduces to the continued health of the vine.

Mr. Hoag (Lockport) does not cut very close in the fall or winter, as the fruit sets better for leaving plenty of wood. After tying up the canes in the spring, and when the new growth has reached even four or five feet, we prune again, cutting out what we deem necessary to sufficiently balance the vine. The ground is often literally covered with lopped branches, and some people think we are spoiling our vines. We do not shorten in, but remove the entire shoot, fruit and all, that we touch. All varieties we cultivate are treated by the same system, and we judge of the amount of pruning necessary by the apparent strength of the vine.

F. R. Elliott supposed it was against good, received theory to prune out the growing shoots. They have connection with the roots.

President Pottle remarked at considerable length on the method of pruning which has, substantially, long

been practiced at Naples, but which lately has obtained prominence before the public under the name of Byington's System. Its main features are: 1st. Growing the fruit on long canes; 2d. Light winter pruning; 3d. Pruning after the fruit has set; 4th. Taking out, at that time, entire shoots, and sometimes canes, and thinning the clusters, if necessary, on what is left; 5th. No shortening or "pinching" of the shoots that are left; 6th. Tying the vines so as to allow them to run over the top of the trellis, instead of clipping them; 7th. Wide planting, or thick planting at first and removing a part of the vines as the vineyard acquires age.

In the first vineyard planted at Naples—McKay's—the vines were set one rod apart each way. They were highly manured, Mr. McKay being able to procure a large number of the carcasses of cattle which had died of some disease, and these were placed under the roots of the vines when planted. For a few years the thrift and produce of the vineyard were extraordinary. Over six tons of fruit were taken from the acre in a single year. The vines were trained fan form, and finally their exuberant growth caused them to interlock, and summer pruning or "pinching" was practised to restrain the growth. Disease ensued. On two rows every other vine was then removed, and the space given up to those remaining. In two years the trellises were filled with bearing wood, which bore one hundred pounds of excellent, well-

ripened fruit to the vine. The remaining rows were still diseased, and the fruit slouched off. They did not carry five pounds to the vine. In his own garden, Mr. P. had experienced similar results. In view of such facts he believed in wide planting to allow the vine something like its normal growth, and not to be obliged to check the growth of the shoots. His own vineyard is planted twelve feet apart in the row, and it never failed in bearing a good crop but once (it is one of the first planted at Naples), and that was because it produced four tons per acre the preceding year, when two tons are all any vineyard should be allowed to bear.

Mr. Pottle prunes lightly in the fall or winter, and when it is apparent that the wood has withered well, prunes again. If too much fruit sets, that is thinned by removing the

whole shoot on which it is. Some fruit may be removed from the shoots that are left, but the shoot is not shortened. Vineyards in Naples that were pruned on the short spur system, and pinched back in summer had the rot and mildew, and the fruit slouched. Others, in their vicinity, treated on the system he had described were healthy and bore well. When the system was changed on the diseased vineyards they recovered and fruited again.

Mr. Pottle described an experiment made by Mr. Byington to prove that sunlight on the grape cluster was not important. When the berries were about the size of buckshot some clusters were enclosed so as to be in complete darkness, and they ripened and colored equally well with others on the vine fully exposed to the sunshine.

CURIOSITIES AND GLEANINGS OF GRAPE LITERATURE.

It seems we have touched Mr. "Ozark" in a tender spot, in our comments upon "Covering Grapes in Winter," if we are to judge from an article called "The Grape Culturist and its Editor," in *Colman's Rural World*. Were the article in question written in gentlemanly or decent language, we should be pleased to copy it for the benefit of our readers, but in its present form we think it beneath anything but a passing notice, and as friend Colman claims to have the most widely circulated agricultural paper of the West, we trust most of our readers can find it in its columns,

if they have a curiosity to see it. As we have since heard that "Ozark" is Mr. Rockwell Thompson, of M. Mammoth Blackberry, and "Thompson's Red Seedling of Concord" notoriety, we are not surprised that he is sore, nor are we sorry that we hurt his feelings, for while we desire the good will and kind feelings of *all true* grape-growers, we hope to make enemies of the whole humbug gentry. We will say to Mr. Thompson, that he is welcome to "rake up our record," as he threatens, as we are entirely willing to "stand by it."

EDITOR.

From the Horticulturist.

THE GRAPE MARKET OF 1869.

The Concord, the past season, has increased in popularity, and I think it has been better ripened and more carefully handled than in previous years, and the sales have given more general satisfaction. The more Southern grape-growing sections have not sent us as many as usual, which accounts for the healthy tone of the market during their season.

The demand for it this year was ahead of the supply, and even after the advent of the Isabella, its most successful competitor, the demand still existed in preference to them. There is one peculiarity about this grape that is overlooked by many, and I think is the cause of the difference of opinion in regard to its merit—that is, that the flavor or character of the fruit is governed by the soil in which it grows to a greater extent than any other variety; for, in comparing the fruit from different States and different sections of the same State, I have found some without the peculiarity of this fruit, and experienced persons have denied these being Concords, the flavor being so unlike those that they were acquainted with.

The demand for the Isbellas has been unprecedented; the crop has been large, the fruit good but not large, and prices within the reach of all—say from 8c. to 10c. per lb. wholesale.

The low prices of this variety have seriously interfered with the sales of the Iona, Catawba, and Diana.

The Israella has been proved, and found to be a good grape, prices rang-

ing a trifle higher than the Isabella. The above includes the three principal black grapes in our market; the other varieties are scarce and not much known, and are frequently sold for the above varieties.

The Catawba has not ripened as well as usual, and has sold at lower figures than any former year, say from 9c. to 12c. Last season, the demand for Thanksgiving was for Catawbas principally, and few Isbellas. This season there is scarcely any demand for them, and not enough Isbellas in the market to fill orders.

This is a very singular state of affairs, not easily accounted for. The Iona has been quite plenty, but, strange to relate, there has been but little or no demand for it. A few crops well ripened were received, and sold at fair prices; but as a general thing this fruit has failed to ripen, and consequently was rejected by the consumers. The dealers say that it is no better than the Catawba when ripened, and resembles it so closely that consumers refuse to buy, for fear it might not be as good. There is a feature in this grape that I think worth mentioning—that is, a disposition to drop from the stem after being packed a short time.

The demand for the Diana has been very light. Last season the Eastern market consumed the whole crop; but this year there has been no demand from that section, although the crop is light and fruit good.

Owing to a break on the Erie Railroad, just as the Delaware crop was

coming in, the bulk of this fruit was detained about ten days; the quantity that accumulated on the road during that time was so great that on arrival it broke down the market, and the dealers were compelled to sell large quantities for wine that had injured during the detention. And the Catawba, coming in at the same time, supplied the demand for a larger grape. Had this detention not occurred, the entire crop of Delawares would have been disposed of at high prices, as the demand was much larger than any previous year.

The above are the principal varieties of red grapes in our market.

White grapes are so scarce that we see but few of them. Dealers who sell a hundred tons of the above varieties in a season do not receive a hundred pounds of white fruit. We need a white grape more than any other variety, and they can be sold at higher prices.

C. W. IDELL,

328 Greenwich st., N. Y.

[We think our friends to whom the markets of New York are accessible, should plant the Martha; a white grape is so desirable. This would fill the bill, as it is healthy, very productive, and attractive to the eye, ripens before the Concord, and is of better quality.—ED.]

SUCCESS WITH NEW GRAPES IN SENECA COUNTY, N. Y.

A correspondent of *The Country Gentleman* has been trying many of the new varieties of grapes, and speaks highly of the Eumelan and Martha:

"The Eumelan vines have grown very strong and healthy, making good strong arms, and have ripened them to the tips of the vines. I have fifty-four Eumelan vines planted in the field. They are vigorous, and have shown no signs of mildew; leaves large, dark, and thick; wood short jointed; and I have no doubt that it will stand the cold equal to the Dela-

ware or Concord. It is very firm and hard.

"I have the Walter grape on trial this season; it has made a good growth, but the leaves have mildewed; the wood has ripened about one-third. It is planted by the side of the Eumelan vines, and has just as good a chance as they.

"I have about two hundred Martha vines growing. I think it the hardest and best white grape we have; the wood will stand the winter's cold equal to Concord."

MICHIGAN WINE.

A few days ago we received a bottle of white Concord wine, made in the fall of 1869, made by an old correspondent, Mr. Joseph Sedlaezeek, at Monroe, Michigan. The wine was perfectly clear, of a beautiful straw color, with just a perceptible tinge of pink, of good body, good flavor, and "very good to take." It showed

skillful handling, and if our Michigan friends can make such wine generally, they can certainly enjoy it themselves and we do not think they would find it very difficult to dispose of the surplus at a good round price. We would not consider it a very grievous infliction, if we had to test similar samples every day.

EDITOR.

EDITOR'S LETTER BOX.

Were we to collect the many pleasant tokens of appreciation, and of hearty cheer and good will the GRAPE CULTURIST, as such, has received from its readers, old and new, we could fill several numbers with them. But however gratifying they may be to our personal feelings, as evidences that our labors have not been in vain, and that the grape growers of the country want a medium for the exchange of their views, we think we can serve them better by only publishing and answering questions which have a practical bearing on grape culture, than by filling our columns with compliments to ourselves and our journal. Once for all, we thank them sincerely, and, as the GRAPE CULTURIST seems now to be established on a safe and permanent basis, we promise them that it shall be our constant thought and endeavor to make it worthy of their patronage. But to make it what it should be, we need not alone their material aid, but their contributions of experience to its pages; we want the thoughts and doings of all our working, thinking vintners, and we hope they will send them. If some of them are crude, we will put them into shape.

From our brethren of the horticultural and agricultural press, we ask a continuation of good will and courtesy. We shall freely call from their pages, if we find items of interest, and ours are equally at their service.—EDITOR.]

tomary with grape propagators to use the wood cut from one year old grape plants, for cuttings to propagate plants from? I am led to ask this question from the fact that I observed, in taking up a lot of vines struck last year, that only the larger wood has taken. Further, I observed that we bought a lot of grape wood cut from one year old plants, from a man of pretended grape experience, of our county, and nearly all of it failed; and I noticed that only the large wood has taken. Now, some of this wood was not over one-eighth of an inch in diameter, and he had cut the wood into lengths of from one to one and a half inches.

Further, I was in conversation with a German grape grower the other day and was showing him a lot of Delaware vines struck last spring, (the wood was taken from bearing vines in this case) and they had made fine growth, and I asked him if I could use the wood cut from these one year old plants, and make good plants from the wood cut from them? He said that I could not; that they would not make good plants. He said that grape wood, for striking, should be cut from bearing vines. I have your work on grapes and wine; also, Fullers'. I have examined both, but could see nothing said about the age of vines from which propagating wood should be obtained. Please, for my benefit, as also, perhaps, for others, answer the above through your journal, the GRAPE CULTURIST. It is true, if we have been humbugged in the one year old

CLARK'S NURSERIES, January 10th, 1870.

GEORGE HUSMANN, Esq.:

Editor Grape Culturist—Is it ens-

plant wood, such humbuggery needs to exposed.

Yours,

JESSE M. WELLBORN.

COVINGTON P. O., Ga.

[It makes no difference in propagating, whether the wood taken for propagating, be of one year old vines or bearing vines, if it is *strong enough, well ripened, and well preserved*. These are the three all important requisites. If they are fulfilled, and the variety propagates at all, it will make roots if well managed. In fact, we prefer the short jointed wood from young plants if ripened thoroughly out-doors, and at least one-fourth of an inch thick, to any other for cuttings. Perhaps the cuttings you mention, had been exposed a great deal, and of course thin, light wood dries out easier than heavy canes. The first requisite in keeping wood for propagating, is to keep it *fresh*, and too many neglect this.—EDITOR.]

LONE JACK, Mo., January 11th, 1870

MR. HUSMANN:

I have in vines about four acres, three of Concord and one of Norton. One acre bore last season. They rotted some. My Norton looks well for the first year. I have also a few other varieties—Hartford, Clinton, Herbemont, Ives, Delaware, Rulander and Catawba. I have also a seedling grown from seed which was brought from Europe ten years ago. It fruited last year. The fruit was about the size and color of Catawba, but of better quality. Perhaps your interest for my short experience of only four years is small, so I will close.

Yours truly,

ISAAC MARTIN.

[We want *all* experience, no matter of how short duration. Please let us hear of that seedling again, also of your other grapes.—ED.]

FREDERICK, SCHUYLER COUNTY, ILL., }
January 13th, 1870. }

MR. GEO. HUSMANN, Bluffton, Mo:

Dear Sir—I bought of one man, last fall a year ago, six or seven hundred Concord grape vines, and the following Spring I got of another man one thousand. Now one of the parties has swindled me. I think the seven hundred lot is Catawba. Is there any way I can tell differently without waiting until they fruit? In the last number of the GRAPE CULTURIST you speak of a saving of one or two years by the single eye system. I don't understand how that can be. Please answer by letter.

Yours truly,

CHARLES FARWELL.

[We could tell you very easily which of the vines are Concord and which not. But whether you will be able to tell them apart, we do not know. The Concord is a much stronger grower than the Catawba, wood of a clearer brown, leaves darker green above, and more wooly underneath.

We did not imagine that any one could take our *satirical* remarks on the nonsense you refer to, for an *endorsement* of the process. We intended to hold it up to the ridicule it so richly deserves.—EDITOR.]

FRIEND HUSMANN: It was my intention to give you a mode of using up the surplus of one and two yearling vines, when such occurs; but on seeing the communication you copied from some noted journal wherein a corre-

spondent gave forth how to grow vines from single eyes, and to gain ten years thereby over the usual way, I thought my communication would be unnecessary. Now, Mr. Editor, you ought to explain how this marvelous operation is to be performed, for it is expected *you know all things* pertaining to these matters.

But suppose that you fail to enlighten us on that subject, them my powder may not be burnt in vain.

I simply mean to go to work and graft them in the rows as you would trees.

Follow the usual directions as to depth of performing the operation, and when the grafts have grown a foot or more, draw the earth up around the graft a few inches, which will cause roots to start from the graft, thereby increasing their growth, and as it were, helping to establish a foundation of its own.

To guard somewhat against the suckers which in this case are always troublesome; it is well to remove the earth low enough down on the stocks so as to have a chance to gouge out the dormant eye below where the graft is to be inserted.

To those who lay in cuttings the coming spring for this purpose a year or two hence, I would advise them to cut out all the eyes except the upper one, which is to grow. This will save a deal of trouble when grafted, as the removal of suckers is much more trouble than the grafting.

I helped take up a lot of vines one year old, the cuttings of which had been treated in the above way, which were as well rooted as any vines I ever saw of the same age.

Cuttings intended for grafting upon, should not be planted nearer than four inches, if to graft in one year thereafter; and if intended to be left until the second, they should be put six inches apart. The idea that grafted vines are short lived, as some of the savans tried to make us believe a few years ago, is all moonshine.

Even though the root be not a suitable one at times, the graft is easily made self-supporting.

Then again some varieties can be improved in vigor and health by being grafted on strong and hardy growers. The time is not distant when we will see this mode in general use, just as they now graft apple, pear, plum, &c.

Yours truly, S. MILLER.

BLUFFTON, January 21, 1870.

[The communication of our friend is, as usual, well timed and practical, and his hints very useful. We do not pretend to "know all things," as he expresses it, but we hope to get wise by just such and similar communications.

—EDITOR.]

COUNCIL BLUFFS, IOWA, January 10, 1870
MR. HUSMANN:

Dear Sir: I have your book on grape and wine, and by its advice have erected me a nice two story cellar with press-house over it, and obtained a one hundred dollar press, made at Belleville, Ill., and got a lot of new casks made, and have made 100 gallons of wines, (now just packed off) as clear as old Bourbon whisky, and colored very much like it. Many of our best judges have tried it and pronounce it No. 1. Many Germans say it is equal to their best German wines. I have light red and dark red also, the dark red being

gallized and stood thirty-six hours on the husks before pressing, and therefore, did not work quite so smooth as the other. I would like you could see and taste my first attempt at wine making. I sent to Mr. Blatner and obtained a sacharometer, and everything worked to a charm; now, God bless *you* for such a *work*. My wine is all made from Concord grapes. I have three acres in bearing, and sold last fall's crop mostly at 12½ cents per pound, mostly to jobbers in the city; the cash received was over \$1,500. I have now out eight acres, and intend putting out eight more this coming spring, mostly Concord. I want a few Martha and North Carolina seedlings; they come too high to buy many. Please send me your price list, and I would like to have your opinion, as to whether or not those two grapes will stand the winter this far North, and also, if they stood the wet season of last year with you well or *not*? My Concord and Diana was healthy last crop, with rain every other day through July and August; all others were damaged more or less.

Well, I must stop, less I worry you. But before closing, I wish to thank you for the first six numbers of volume one of the GRAPE CULTURIST, and would like the other six very much. Send me the GRAPE CULTURIST for 1870, and the six last numbers of the first volume, if you have them. I will try to send you a new name, with the money, now and then, as I can pick them up, for the favor. Address A. S. BONHAM,

COUNCIL BLUFFS, Iowa.

[We are glad to hear that our advice has been of some benefit to you, and would like to taste of some wine made

way up in the north of Iowa. The Martha and North Carolina seedling are as hardy and healthy as the Concord here, and if the Concord is a success with you, we think these will be. You should also try the Telegraph and Goethe.

We wish to aid just such men as you are as much as we can, and you need not fear wearying us when you write about grapes and wines.—EDITOR.]

ABINGDON, VA., January 1, 1870.

GEO. HUSMANN, Esq.:

Sir—I send you to-day, by mail, grafts of "Haskew Grape," Seedling No. 2. In my letter of last October, I could not with any certainty give you a description of bunch; it is rather small and sometimes shouldered. I think that the unfavorable situation of the vine in the midst of a clump of trees, in a dense shade and entirely unpruned, prevents an idea of its quality or productiveness.

I think you are mistaken in No. 3 being Catawba. I have a Catawba growing near it, and they are certainly different, and it is a great deal more difficult to propagate.

I do hope the publication of the GRAPE CULTURIST will be continued, considering it of great value to grape growers. Respectfully, W. B. KELLY.

[Thanks for the grafts, which came duly to hand. We may be mistaken in regard to No. 3 being Catawba. It may be the B'land, which much resembles the Catawba in color of fruit and quality; it is somewhat lighter than Catawba, with a thicker bloom on the berry. It was difficult to judge of the fruit in the condition it was in when received.—EDITOR.]

Club Rates.

By special agreement with the publishers, we are enabled to club the GRAPE CULTURIST with the following journals, at the annexed rates:

Grape Culturist and Journal of Agriculture..	.....	\$3 00
" " American Entomologist.....	.....	3 00
" " Colman's Rural World.....	.....	3 00
" " Horticultrist.....	.....	3 50
" " Zymotechnic News (English and German).....	.....	2 25

To those sending us the names and post office address of six subscribers, we will furnish the sixth copy *free*.

Vol. I. will still be furnished at the reduced rate of \$1, *complete*. To those who desire it bound, we will furnish it bound in muslin, with index and title page, at \$2.25, post paid; or they can be supplied with the cover at \$1.00 each.

Cash Advertising Terms for 1870.

TWENTY CENTS PER LINE, AGATE TYPE, EACH INSERTION.

Cover Pages Twenty-Five Cents per Line.

BUSINESS CARDS, FIVE TO SIX LINES EACH, \$15 PER ANNUM.

HAVE YOU GOT MARTHA?

GRAPE VINES AND SMALL FRUITS.

[Nursery Established in 1857.]

A splendid stock of Vines and Plants are offered the coming Fall and Spring, including nearly every variety known to be of value. The popular and white Grape

MARTHA, OR (WHITE CONCORD,)

In large or small quantities. Also, Arnold's new Hybrids, Eumelan, Walter, Weehawken, Christine, Hime, and all valuable numbers of Rogers' Hybrids; also, Delaware, Iona, Israella, Concord, Hartford, Ives, Norton's Virginia, etc., etc., in all about one hundred distinct varieties.

Kittatinny Blackberries and Clarke Raspberries in large quantities, Jucunda and Charles Downing Strawberries, Downing's Seedling Gooseberries, Cherry, Versailles, White Grape, and Black Naples Currants, etc., etc.

Send stamps for Illustrated Catalogue and Price Lists to

april-99-tf

GEO. W. CAMPBELL, Delaware, Ohio.

CHOICE VARIETIES OF
Grape Vines, Strawberry Plants, Raspberry, Blackberry & Gooseberry.

Also, a few Peach and Cherry Trees, the finest growths. Particular attention will be paid to small orders of plants to be sent by mail. For sale by

SAMUEL MILLER, Bluffton, Mo.

THE HORTICULTURIST

AND

JOURNAL OF RURAL ART AND RURAL TASTE.

(ESTABLISHED BY A. J. DOWNING, 1846.)

Devoted to Horticulture, Landscape Gardening, Rural Architecture, Rural Embellishments, Pomology, Floriculture, and all subjects of Rural Life, Literature, Art and Taste.

HENRY T. WILLIAMS, Editor and Proprietor.

SUBSCRIPTION TERMS.—Regular Subscription, \$2.50 per annum. Monthly Numbers, 25 cents. N. B. All subscriptions strictly in advance.  To prevent loss of money through the mail, subscribers will please transmit Check, Draft, or Postal Money Order for amount. We cannot be responsible for sums sent in any other way and lost.

CLUB TERMS.

3 copies to 1 P. O. address, \$1.75 [\$2.25 each].	10 copies to 1 P. O. address, \$17.50 [\$1.75 each].
5 " " " 10.00 [2.00 "].	20 " " 1 " 30.00 [1.50 "].

An extra copy sent free to the former of clubs of five, ten or twenty subscribers. Illustrated Prospectus free on receipt of Postage Stamp. ADVERTISING RATES—25 cents, per agate line, each insertion. Address, HENRY T. WILLIAMS, 7 Murray street, New York. P. O. Box, 2445. The *Horticulturist* for 1869 and 1870, unbound will be supplied at \$4.50. Bound volumes for 1869, \$3.00 each.

d'HEUREUSE AIR TREATMENT.

PATENTED AUG. 6th, 1867, AND AUG. 3d 1869.

For FERMENTATION and GERMINATION, and for PRESERVING, PURIFYING and IMPROVING of Organic Substances.

Exceedingly useful in Malting, Brewing, Distilling, Baking, Manufacture of Wine, Cider, Fruit Wines, Fruit Brandies, Vinegar, etc.; in Sugar Works, Oil Works, Manufacture of Extracts, Preserves; in Storehouses, Transportation of Grain, Produce, Fruit; Purification of Water, etc., etc.

 Rights for States, Counties, Districts, or Establishments, for sale. Apply to

P.O. Box 6844.

R. d'HEUREUSE, New York.

PUBLISHED AND FOR SALE

BY

CONRAD WITTER,

ST. LOUIS, MO.

MUENCH, FREDERICK, *School for American Grape Culture*. Brief but thorough guide to the laying out of vineyards, the treatment of vines and the production of wine in North America.

MUENCH, F., *Amerikanische Weinbauschule und Weinbercitungsllehre*, etc.

Either one of these books will be mailed free of postage on receipt of one dollar.

HUSMANN, GEORGE, *The Cultivation of the Native Grape and Manufacture of American Wines*.

On the receipt of \$1.50 this book will be mailed to any address.

SCHMIDT, J. A., *The Diseases of Wine*, how to prevent and how to cure them, according to the doctrines of M. Pasteur.

This book will be sent, free of postage, on receipt of \$2.

C. WITTER keeps a large assortment of books treating on the Culture of Grapes and Manufacture of Wines.

Catalogues sent on application. Please address letters,

CONRAD WITTER,

122 S. E. corner Walnut and Second Sts., St. Louis.

GRAPE WOOD

FOR

GRAFTING OR PROPAGATING.

CYNTHIANA.....	\$ 5 00	per 100.....	\$35 00	per 1,000
HERMANN.....	10 00	"	75 00	"
MARTHA.....	3 00	"	25 00	"
DEVEREAUX.....	2 50	"		
RULANDER.....	2 50	"	20 00	"
LOUISIANA.....	2 50	"	20 00	"
MAXATAWNEY.....	1 00	"	8 00	"
TELEGRAPH.....	1 00	"	8 00	"
CASSADY.....	75 cts.	"	6 00	"
CREVELING.....	75	" "	6 00	"
GOETHE.....	75	" "	6 00	"
IONA	75	" "	6 00	"
ISRAELLA.....	75	" "	6 00	"
LINDLEY, (Rogers' 9).....	75	" "	6 00	"
MASSASOIT, (Rogers' 3).....	75	" "	6 00	"
MERRIMACK, (Rogers' 19).....	75	" "	6 00	"
NORTH CAROLINA SEEDLING.	75	" "	6 00	"
ROGERS' HYBRIDS, Nos. 2, 8, 12.	75	" "	6 00	"
SALEM.....	75	" "	6 00	"
WILDER, (Rogers' 4).....	75	" "	6 00	"
HERBEMONT CUTTINGS, 9 to 12 in., trim'd ready for plant'g	10 00	"		
DELAWARE	"	"	10 00	"
HARTFORD PROLIFIC	"	"	5 00	"
IVES'	"	"	5 00	"

Cuttings will be shipped by express or freight, and an additional charge of 30 cents per 1000 for boxes and packing be added. Freight to be paid by purchaser.

WE HAVE A LIMITED QUANTITY OF
WOOD FROM BEARING VINES,
From our former Vineyards at Hermann, for Sale.

All who wish to try them, will be furnished at the above rates, by addressing.
Small packages will be sent by mail, post paid.

GEORGE HUSMANN,

BLUFFTON, MO.

ZYMO TECHNIC NEWS.

A MONTHLY JOURNAL

FOR

ALL BRANCHES OF FERMENTIC ARTS:

MANUFACTURING OF

Wine, Beer, Spirits, Vinegar and Yeast.

The "Zymotechnic News" will give a detailed record and discussion of all improvements which obtain publicity, both in the Old and New World. The more important ones of these improvements will be subjected to the most careful tests in the chemical laboratories and technic establishments, amply at the editor's disposal, and the results thus gained will also form part of the communications of the "Zymotechnic News."

The "Zymotechnic News" will appear both in ENGLISH and GERMAN, and the yearly subscription for each one of the two editions is but \$1 in advance.

ONLY ONE DOLLAR A YEAR!

All Business Men standing in any practical relations to Zymotechnic Pursuits, more particularly

**PRODUCERS OF WINE, BREWERS, DISTILLERS, RECTIFIERS,
WINE AND LIQUOR DEALERS, VINEGAR AND YEAST
MANUFACTURERS,**

Ought to subscribe for a copy of the "Zymotechnic News" in order to rest assured that nothing new in the technical appliances of their pursuit will escape their notice. If but once in a while a *single* item of interest and value to themselves has been made available, the small expense of \$1 a year will have possibly been repaid a hundred-fold in a short time.

All letters and remittances are to be directed to the undersigned.

N. B. Correspondence conducted in English, French and German.

CHAS. H. FRINGS, Editor,

(P. O. Box 2,742.)

202 SOUTH FOURTH STREET.

St. Louis, Mo., December, 1869.

jan70-tf

GRAPE VINES AND SMALL FRUIT,

Warranted Genuine and of Superior Quality, in Large Quantities, at Reduced Rates.

CONCORD.....	per 10,000.....	\$250.00	MARTHA, extra strong.....	per 100.....	\$ 75.00
".....	per 5,000.....	125.00	CYNTHIANA, "	per 100.....	100.00
".....	per 1,000.....	35.00	IVES, "	per 1,000.....	50.00
HARTFORD PROL.....	per 1,000.....	45.00	".....	per 100.....	6.00
".....	per 100.....	6.00	RULANDER, "	per 100.....	30.00

For prices of all other Varieties, we refer to our PRICE LIST (*gratis*), and to our new ILLUSTRATED DESCRIPTIVE CATALOGUE, containing valuable information on grapes and grape culture, which will be mailed, free of postage, to any address, on receipt of 25 cents.

A GERMAN EDITION of same, by Fr. Muench, price 25 cents (less than cost), has just been published

Please address

jan69-tf

ISIDOR BUSH & SON, Bushberg, Jefferson Co., Mo.

GRAPE VINES!

The Bluffton Wine Company

Offer a large stock of thrifty, finely rooted GRAPE VINES of all valuable and popular varieties, together with all novelties in this line.

Descriptive priced Catalogues sent to any address on application to

WILLIAM WESSELHOFT, Secretary,
Bluffton, Missouri.

jan69-tf

TOBIAS WEIGOLD, COOPER,

1618 Jackson street, St. Louis, Missouri.

Offers his services to Wine Dealers, as manufacturer of all kinds of casks, fermenting vats and cellar apparatus. He guarantees satisfactory work and lowest prices. Refers to some of the principal wine dealers in the State of Missouri, for whom he has made casks and vats for a number of years, and especially to the Bluffton Wine Company, No. 22 South Main street, where casks and vats of his manufacture can be seen by those interested in the business.

feb69-tf

GRAPE WOOD TWENTY KINDS!

Immense Stock, especially of

Concord, Ives, Delaware, Hartford, Iona, Catawba, Isabella, Clinton, Rogers' Nos. 4, 15 and 19, etc.

Cut from Bearing Vines before hard freezing, and stored in frost-proof Cellars.

Very Low for Cash. Price List Gratis.

ALSO, LEADING VARIETIES OF GRAPE ROOT IN STORE.

Can ship South safely at any time.

M. H. LEWIS, Sandusky, Ohio.

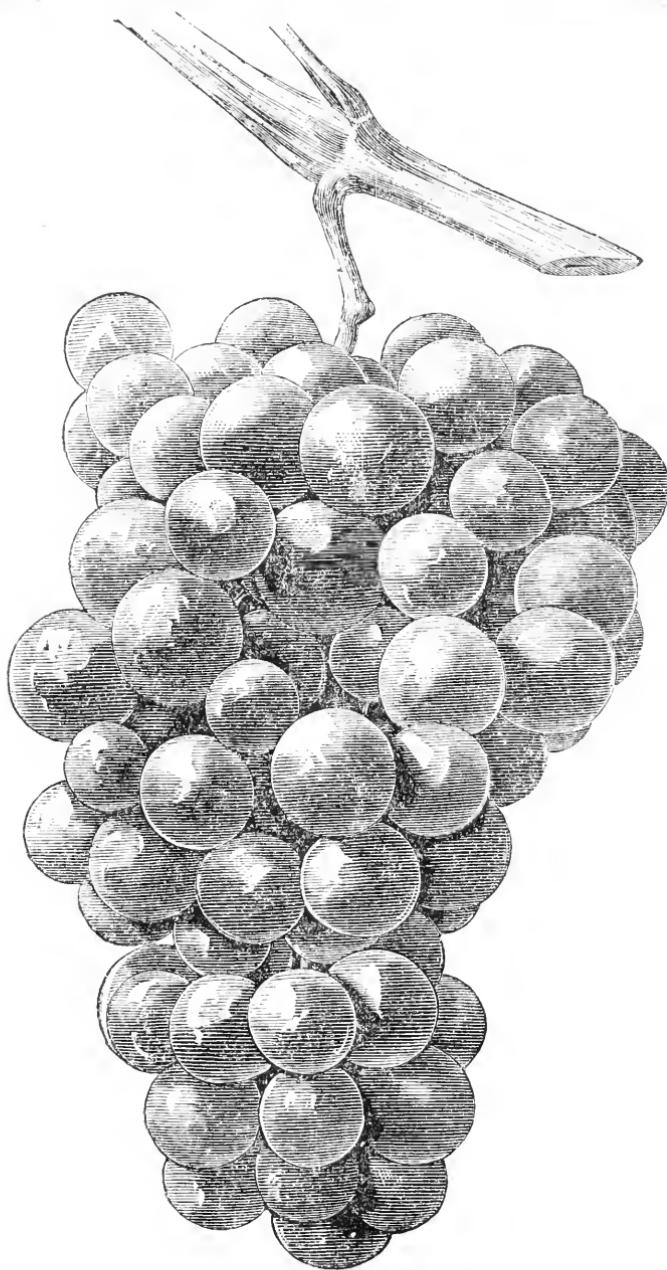
feb69-tf

THE
GRAPE CULTURIST.

VOL. II.

MARCH, 1870.

No. 3.



THE HINE.

THE HINE GRAPE.

"A new seedling of the Catawba, raised by Jason Brown (son of John Brown), at Put in Bay, Ohio. It makes a good sized, compact, slightly shouldered bunch: berry medium, of a dark rich claret brown, with a purplish bloom; skin of medium thickness; flesh juicy, sweet, and almost without pulp; leaf large, thick and whitish underneath; canes reddish brown, short jointed; buds prominent, ripens with Delaware. Regarded by all who have seen it as a grape of much promise. It took the first premium as best

new seedling at the Ohio State Fair. We give an engraving, figured from a bunch raised by Charles Carpenter, Kelley's Island."

[As this new grape has not yet been generally tested, we copy the above description from Bush & Son's Catalogue, without recommendation, as we have not seen it fruit. It may be well for the amateur to test it, but we would not advise planting it largely, as it is said to be a cross between the Catawba and Isabella, two varieties subject to disease.—ED.]

MARCH.

WORK FOR THE MONTH.

March is a busy month for the vintner. Between planting, tying of vines, putting in cuttings, plowing and hoeing, he will have his hands full, and he will doubly feel the advantage now, if he has done all he could in advance, and has driven his work instead of the reverse.

The whole practice of planting is laid down in very few words:

1. Have good plants, with plenty of well ripened strong roots.
2. Have your soil well worked and pulverized before you commence.
3. Plant neither too deep nor too shallow, about ten to twelve inches we think best.
4. Shorten in the roots of your vines with a sharp knife to about nine inches.
5. Spread them evenly and uniformly to all sides.

6. Fill up with well pulverized, mellow earth.

7. Cut back the topso as to be even with the surface of the ground.

8. Never plant when it is too wet, and do not let the roots of your plants get dry while planting.

If you observe all this, success is certain.

We suppose your trellis made as it ought to be, and your vines pruned. In tying, spread them evenly over the trellis, taking care not to crowd any part, and avoid crossing, commencing on one side of the trellis below, tying upwards and descending on the other side. We prefer fan training, and seldom tie to the upper wire, if we can help it, leaving this to be covered by the young growths. The best ties by far are small willow twigs, but at any rate it should be done firmly,

and so that it will hold through the summer.

This is the month for grafting here, but as that operation is fully discussed in another part of this number, we will here say nothing about the *modus operandi*.

Cuttings may still be planted, but to ensure success should always be planted as early as the ground is in good working order for plowing. This we generally do with a common one-horse plow, throwing a furrow from the vines toward the middle, as close as we can come to them without injuring the roots. We then hoe under and around the vines with the two pronged hoe or karst, loosening and

inverting the soil to the depth of three or four inches. Then run the plow through the middle of the row, throwing the ground to the vines until the whole surface is loosened, leaving a furrow in the middle about four inches deep to serve as a surface drain.

Canes for layering may also be laid down. Pulverize the soil thoroughly under the vines, then make furrows about an inch deep, bend the cane into it, and fasten with wooden hooks or pegs cut for the purpose. You can cover with earth when the shoots have grown about six inches, not now, as the buds will break more evenly if they are not covered.

SALEM VINDICATED.

EDITOR OF THE GRAPE CULTURIST—
Dear Sir—I have just received the January number of your "GRAPE CULTURIST," and notice in an article entitled "Grape Humbugs and their disseminators" much of ire, and considerable nonsense, in connection with one Dr. J. S. Hyde and the "Salem Grape." It seems that the Doctor lives at Brocton, N. Y., and there is a large and very flourishing Salem vineyard in the same town, by which strange coincidence both the "Doctor and the "Salem" are brought under condemnation. You say that last fall the Doctor exhibited grapes as the Salem which he stated came from Bluffton, which were not Salem, and that he has stated that you have "no true Salem at Bluffton." So to practice a shrewd bit of economy, you pro-

ceed to pitch into the Doctor and the Salem Grape at once. The inference from your articles, and the charges therein, is, that Dr. Hyde is now at Brocton engaged in "bolstering up the reputation" of the variety in question, and selling all the plants he can, thus deceiving the public, and acting the part of "Shark and Hyena." Not very polite terms, unless you are sure you understand your case. Now as you profess willingness, to give a fair hearing to all, I wish to make a plain brief statement, which I think will show that you have misjudged the case entirely, at least so far as the interests of the Salem grape are concerned. And I will begin by saying that the people at Salem-on-Erie have at present no interest whatever in the propagation and sale of plants of the Salem grape.

That people, in the incipiency of a great enterprise, having recently purchased a tract of sixteen hundred acres of improved farms; having eighty acres in vineyard, thirty of it Salem, with a variety of business interests pressing upon them, wished to relieve themselves from the propagation and sale of plants. Accordingly, about one year ago, myself and one other individual, purchased their entire stock of plants, then unsold, and the wood from their Salem vineyard, then on hand and for a period in the future, and removed them to Lockport, N. Y., thus relieving them from all interest in the propagation and sale of plants. Having located the "true Salem," permit me to say that Doctor J. S. Hyde is not known to us here, and cannot be employed by the worthy community at Brocton, in "bolstering up" the Salem, since they have no service of that kind to perform.

You profess to publish a journal in the interest of Grape Culture in its broadest sense, and in the main during the last year, I can approve the tenor of its discussion.

If you could only undeceive yourself from the idea that "Bluffton" is the centre of the grape universe, to which all other points are but appendages, you might do a signal service to the country *at large*.

Because you succeed imperfectly with the Delaware, it does not prove that that variety is not one of the best and most popular grapes in the country to-day. You grow some numbers of the "Roger's Hybrids" to perfection. Other localities will grow other and better numbers of that collection equally well.

Instead of gratifying your animosities you ought to encourage experiments, showing where our best varieties are to succeed the best. The Salem is a strong growing variety, and will not bear dwarfing. Put in practice some of the ideas in Mr. Underhill's article on pruning and training, which you copy, and I shall expect you to report differently upon some of the varieties that you now condemn. A word as to our experience here at Lockport with some of the "Rogers Hybrids" last year, which was the worst season we have ever known for the grape. At the Western N. Y. Horticultural Society meeting at Rochester last week, Mr. Craine of this place, stated that from one twentieth of an acre of Rogers' No 4, in his open vineyard, he last fall marketed at the rate of 9,000 pounds per acre, at 25 cents per pound, which would be at the rate of \$2,250 per acre. He speaks highly of the Salem, though not having it yet in full bearing.

In my own vineyard last year the Salem was perfectly healthy, ripened its wood to the tips. The fruit was early and of best quality. And we think we have assurance of a most profitable market variety for this section at least. While I am interested in the sale of plants, I am quite willing this variety, like all others should stand upon its own merits, which I believe future experience will enable it to do most effectually. At the Lake Shore exhibition in the fall of '69, bunches were shown weighing over one pound each, and if you will travel this way next fall we will show you the like again, which you may never be able to see at Bluffton, Mo.

A few words as to Dr. C. W. Grant

and new varieties. While the most of us have been somewhat taken in by the Iona and Israella as to time of ripening, we cannot deny that Dr. Grant has done much for the cause of grape culture. His efforts in disseminating the Delaware did much to cultivate the public taste, and rapidly increased vineyard planting. That the Iona is a grape of very high quality none will deny who have seen it in perfection. That the Doctor was himself deceived from insufficient experience as to its time of ripening is quite probable. Yet in many localities the Iona is a grape not easily excelled, in quality and profitableness. What the Eumelan will do remains to be seen. That it is a grape of very high quality I have not a doubt. Though but slightly interested in its growth and sale, I am yet willing and desirous to see it widely and fairly tested, and shall be right glad to add one more to the few varieties of American grapes adapted to wide and profitable cultivation. Let us bury our prejudices and animosities, and proceed in the great work of proving this a land adapted to profitable grape culture, as well as the growth of great moral ideas and political equality.

I. H. BABCOCK.

LOCKPORT, Jan. 25, 1870.

[We willingly give room to the above, because its expressions, which we would not allow against any of our contributors, are against *ourselves*. And we think we are not much damaged by them. We are very glad to hear that Dr. Hyde is not interested either with either Mr. Babcock, or Mr. Harris, the proprietor of the Salem vineyards. That we have "condemned the Doctor and the Salem" together,

however, we cannot see, as we are not aware that we have condemned the Salem anywhere. We simply said that we thought its reputation as a uniformly healthy, hardy and productive variety *throughout the country*, somewhat on the decline, and gave our experience at Bluffton and Hermann with it. If Mr. Babcock calls that "pitching in," we cannot help it; and we here tell these gentlemen who make a specialty of the growth, sale and propagation of any one variety, *once for all*: if they expect our journal to publish only what is favorable of their peculiar pets, and ignore all that is unfavorable, they are very much mistaken. We publish all the reports about varieties from all parts of the country, even about our own special favorites, be they favorable or unfavorable; we are working in the interest of the whole grape growing community, and no one, be he Tom, Dick, or Harry, can get us to serve his peculiar interest in the sale of any variety, over the interest of the great cause.

We have no where, to our recollection, called the *Salem Grape* a humbug, but only *Dr. Hyde*, and are glad to hear from friend Babcock, that he is not in his employ. We can assure him, however, that even if he were, he would not be the first who has been deceived by that individual, and could hardly be held responsible for *all* his doings.

We do not think that our readers have found the idea predominant in our writings, that Bluffton is the centre of the grape universe. We think we have a good locality here, but we do not believe that there is at present any one variety of grapes, be it Salem, Iona, Eumelan, Walter, or any other, that

will succeed equally well everywhere. This, these gentlemen, who have become so enamored of any one variety, claim for it, and in this we have taken the liberty to differ with them. When the Delaware came out first, Dr. Grant described it in glowing terms; really one would be led to believe that nothing could be better, until the Iona came, when the Delaware was almost forgotten by him, at least cast entirely into the shade, he even invented additions to the dictionary to do its superlative excellence full justice. Then the Eumelan was found, and must still be better. All these varieties, as he insisted, must and would succeed *everywhere*, and any one who held a different opinion was an ignoramus and a barbarian in taste. When the Salem came out, *it* was claimed to be the best, and must needs succeed everywhere. The Walter follows, for which its originator claims that it is the "best wine and table grape in America," and has already written five yards of foolscap in letters to us, because we dared to report that it mildewed badly here. If these gentlemen could only undeceive *themselves*, and not believe that *their* locality is "the centre of the grape universe," if they were satisfied with the merit the grape may have with them, and wait until their pets are tried elsewhere, before they claim impossibilities for them, it would save a great deal of unpleasant discussion, and a great loss of time, money and valuable ground to those who are induced to plant largely of such untried varieties, because of these representations. We wish to encourage experiments—have experimented perhaps as much as most men

with new varieties, but we also say to all our readers: "Try every new variety recommended by reliable men, if you can afford it; but do not plant largely of it, until you *know from experience* that it will succeed. If these gentlemen, who are so careful to publish every *favorable* letter they receive in their catalogues, would be fair enough to publish also the *unfavorable* reports they get, they would not force us into the disagreeable duty to warn the grape growers against buying and planting largely of any untried variety.

Mr. Babcock heads his article "Salem vindicated." We cannot see that it had been attacked much, or that he has succeeded in "vindicating it," as he pleases to call it. He calls it a rampant grower, and accuses us of "dwarfing it." We have advocated wider planting and long pruning perhaps long before Mr. Babcock saw the Salem. We have planted it here 6—10, some of our vines are now in their third summer, and have not yet occupied half that space, while Goethe and Wilder, planted side by side with it, occupied it all. He need not fear but it shall have "room according to its strength," but from present appearances it will not need all it has for some time yet. This may be different with *him* where it does not mildew as he says, but so it is *here*.

We cannot see that the heavy yield of the Wilder, (which also bears heavily here) helps the Salem any, although they may be sisters. We know that Mr. Harris has thirty : *eres* in Salem vines, part of which must certainly be bearing. Will Mr. Babcock give us a report of the doings of these and their yield to the acre?

Such facts would do more to vindicate the Salem, if favorable, than all *assertions* of its productiveness and superior quality. That would be "standing upon its merits." Our columns are open to him for such statements.

Friend Babcock admits that Dr. Grant may have been deceived. This is precisely what we claim for himself. We do not suppose that he would willingly or knowingly deceive the public, but may he not deceive himself, and by giving his own belief, deceive others? He certainly deceives

himself, if he thinks because the Salem succeeds there with him, it follows that it should succeed everywhere.

We heartily concur with him when he wishes that we "shall bury all prejudices and animosities," and can assure him that we are not "acting from prejudice or animosity," but are governed by a deep sense of duty we owe our readers to further the very objects of which he speaks, the advancement of grape culture in this country.—*EDITOR.*]

THE CHEMISTRY OF WINE.

BY CHAS. H. FRINGS.

In the foregoing articles we have principally considered the theory and fundamental principles of wine making, we can now consider their practical use.

In doing this we come to the old mooted question, "Is wine a production of *nature*, or of *art*?"

In consideration of this question, we have only to remark as follows:

A product of nature we can only call that which *nature herself produces without the assistance of human art*. The wild grape vine, growing unchecked on our forest trees, is a product of *nature*, but with the product of the cultivated vine, which is kept in *artificial* bounds by man, art has as much to do as nature. We may safely say that every plant, which is trained and manured artificially ceases to be a product of *nature*, as by manuring we feed it with substances which *nature* denies. Herein lays the most

material difference between man and animal, that the first is enabled by his reasoning powers, which an all-wise Creator has given him, to change the gifts of nature and suit them to his wants and taste. Are not the viands which we daily consume, and which human art cooks, roasts and boils, and to which we add manifold spices, to make them palatable, also products of nature in their crude condition, and only made edible by our artificial treatment? And are not all our most common drinks, with the sole exception of water, products of nature, which have been changed by artificial processes in manifold ways? Does even the wine which the enemies of a rational improvement of the must laud to us as the pure product of *nature*, form an exception to this rule? Is it not pressed and fermented artificially, and do they hesitate to use sulphuric acid, to preserve it sweet, or

animal glues (ising-glass or white of eggs) to clarify it? And this they call "unadulterated, natural wine!"

Those same people, who zealously oppose every addition of sugar to sour must, are fond of sparkling wine, although the addition of cane sugar and alcohol to these is a well established fact. To their coffee and tea,—also products of nature,—they add water and sugar without stint, but the must which has been neglected by nature, dare not have anything added. It would be easy to show these zealots, that they interfere with nature at every step, that they aid nature in almost every act of their lives, that they hardly receive anything from nature and consume it, without artificial changes by them. Only the juice of the grape, which, especially here in America, needs rational improvement so much, must be an exception to the rule. But enough of this! We will "take up the regular order of business."

TREATMENT OF THE MUST.

We have already seen, that must, or the juice of the grape, contains three very important ingredients, *Sugar, acid and ferment*. The proportions of these ingredients must of course greatly vary, according to the variety of grapes, location and soil on which they are grown, their ripeness, etc. Nevertheless we find that a peculiar taste has been developed in all countries where wine is produced, and which makes it possible to fix a certain normal condition between the alcohol and acid which the must should attain, to make a palatable wine for those who drink it. In draw-

ing a comparison between the American and German taste, we think it will differ about as follows:

For Americans, 14 per cent. Alcohol, 4-10 per cent. acid.

For Germans, 10 per cent. Alcohol, 6-10 per cent. acid.

Average proportion, 12 per cent. Alcohol, 5-10 per cent. acid.

To produce 12 per cent. alcohol, the must should contain at least 20 per cent. sugar, which would be equal to 1.095 or 95 degrees of specific gravity on Oechsle's must scale. If the sugar alone determined the specific gravity, 83 degrees would be sufficient to make 20 per cent. of sugar, but as the ferment of the acids and several other ingredients also help to increase its gravity, to about the amount of 2½ per cent., the above proportions are required. We find, however, that such a must, instead of showing 95 degrees on Oechsle's scale, only shows about 70 degrees which is equal to an *actual* amount of sugar of 13½ per cent., and only gives 8½ per cent. alcohol.

A wine, however, containing so little alcohol, is not alone flat, but also liable to spoil, the ferment has only been partially dissolved, is yet dispersed in the wine, and subjects it to continual changes. What, then, is to be done? Shall we sweeten our tea and coffee, but leave the must as nature has produced it? God forbid. It is written, "Thou shalt improve the talent thy master has given thee." We, therefore, add as much sugar as we think it needs, to make a wine which will "gladden the heart of man," instead of a spiritless muddle that disgraces the name of *wine*.

But when we have thus added a sufficient quantity of sugar to bring the body of the must up to its proper proportions, such as it should be in a normal must, we have not yet ameliorated the acid. It happens but very seldom that the must does not contain acid *enough*, in most cases, especially when the grapes were not perfect, it contains an *excess* of acid. What shall we do in this case? Shall we patiently submit to this, and make a so-called "Three men's wine," which takes three men to consume it, one who drinks, another who holds him, and a third to pour it down his throat? Or shall we make vinegar of it? We say, No, decidedly. "Thou shalt improve the talent," etc. We dilute the acid by the addition of *water*, as innocent an article in reality as sugar. Sulphurous acid and isinglass are a

great deal more filthy, and yet they are used very *innocently* by those who make so-called *pure natural wines*.

But by diluting the acid with water, we have also reduced the quantity of sugar again, which the must contains. But luckily we know how to remedy it. Sugar remains sugar, whether produced in the grape or in the cane, if it is only *pure*.

The *principal* question is always: Does the must yet contain wine making substances enough to change the larger quantity to which it has been increased, to *wine*; and especially a wine which has lost all the disagreeable qualities of a *common natural wine*, but contains all the good qualities of the *best* so-called *natural wine*?

This question we hope to elucidate thoroughly in the next issue.

(To be continued.)

GRAPE GROWERS' ASSOCIATIONS—TRAINING, PRUNING, ETC.

FRIEND HUSMANN:

The GRAPE CULTURIST for January 1870 is just received, and its appearance after reading your valedictory in the December (1869) number is both a surprise and pleasure. Apparently you have put your foot down, with the understanding that the GRAPE CULTURIST is an institution wanted, is appreciated by some live men, and must and shall continue to be issued. It is the same old perseverance that has assisted you in pushing the practical example of grape growing to profit; and reasoning therefrom, I think all may look on the GRAPE CULTURIST as a magazine to be continued,

and at once prepare their notes and suggestions of ideas as to improvements in grape growing, and with the subscription money for this year, send them forward to your address. You have, probably, seen and read the doleful *Wail* and the requiem of the late Ohio Grape Growers' Association, which, it was claimed by those of faint hearts in the cause, "could no longer be sustained because the interest in grape culture had ceased to exist, and also, that the society had performed its work." Two points as much at variance with reality as could well be imagined.

It is true, the past year has been an

unusually unprofitable one in the culture of the grape in Northern Ohio, and so it has in the crop of potatoes; in the product of the apple orchard, as well as the crop of Indian corn. Yet who supposes the interest in potato growing, or the planting of apple orchards has ceased. What thoughtful student of horticulture or agriculture at this day imagines for a moment that all has been learned that can be, and therefore a society inaugurated to develop knowledge in vegetable physiology can have performed its work.

Grape growing, when the vines and cultivation are left to themselves, may sometimes produce profitable returns; in fact, there are numerous records of such cases of vines, void of care or attention, giving good crops for one or two years, but not for any length of time, while the skill and aid of man in watching, training and assisting nature to accommodate herself to the wants of man, has given productive vineyards for centuries, and "so mote it continue to be."

From the best information I can gather of the past season's grape crop in the northern part of Ohio, the vineyards having care have returned from Concord about \$250 per acre nett, from Delawares about \$150, from Catawbas about \$100. These are averages. Some Concords have given over \$500, and some Delawares nearly as much, while a few Catawbas have given even more than that. The whole matter may be safely estimated at \$100 per acre net, of bearing vineyards in good management. A net result, far more remunerative than any farm crop which could

possibly be grown on the same lands, and better than the average of farm crops on the best of farm lands under superior management. Grape growers are looking the subject over carefully, studying the past, and reasoning therefrom for the future, and so reasoning, are preparing to plant more, as well as becoming earnest enquirers as to the best modes of culture and training as applied to each vine. I am well satisfied of this interest, because my letter list, asking my views of "what is the best grape and how to grow it" is larger than ever before.

I have just returned from attending the New York State Grape Growers' meeting, held at Rochester, and where the same faint-heartedness on the part of some of the managers was developed, as in the late Ohio State Society. Managers seem to think that if they can get some prominently notorious man to deliver an address, and with his egotistical volubility, talk that which practical men know is sheer nonsense connected with their own circumstances, soils, situations, and practical results, that they are advancing the interests and developing the objects of the society. Bah! A radical change must come in the management, ere they have any great success; and one of the changes must be to permit no man, be he the President, Secretary, or other time-being officer of the society, invited guests, or notorious lecturer, to occupy over ten minutes of time in remarks upon any subject. In the business order, recourse must be had by systematic questioning to bring out from practical men, unaccustomed to speaking in

public, their experience. Many a man will give in answer to a question, information that otherwise he could not think of stating, because, perhaps, the subject to him seemed of little import, and, while he may have practised a system—has never connected it physiologically with the vine in its results. But I'll not weary you with more of this. It is only my view, and probably others think differently, and so thinking, I hope, you will treat them, and their thoughts, out.

The "Byington System" of pruning and training, distances apart, etc., as per Mr. Underhill's article, seemed when I first read it in the Journal of Horticulture, nothing new, and at the recent meeting of the New York State Society, the matter was fully brought up, when Mr. Hoag, of Lockport, stated the system of pruning one he had pursued many years ago, and on questioning, it was stated that Mr. Byington's grapes had not this year ripened as well as some others near by, but pruned in a different way. In connection with theory, this cutting away recklessly an amount of branch and foliage just at a time when all is in the most active condition, both root and top, must apparently of necessity engender more or less of disease at the root.

Giving vines wide expanse, *i. e.*, planting at 16x16 feet, or even greater distance, for the purpose, as some state, to preserve an equilibrium between root and top, only resolves itself into a question of time, for if left unchecked, even at thirty feet apart, the vines would in a few years interlock, and then, if pruned in, the equil-

ibrium would be destroyed just as radically as if the vines were only six or eight feet apart. Your long time advice to prune long, and fruit from well developed buds, even if upon the laterals, is unquestionably one of the best; if the alternate or weak buds be rubbed out as soon as they swell in Spring, rubbing away all the lower ones, it seems to me this superabundance of foliage etc., is measurably disposed of without any injury to the vine.

It is not, perhaps, well understood that the lower buds on varieties that naturally make any vigorous and strong growth early in the season, are always imperfect and do not possess sufficient vigor in the inner germ to secure good bunches of fruit.

Root Pruning to me appears one of the practices which we must come to in all of our artificial culture of the native vine. I am trying it on a few vines, and want others to do so. I dig a trench eighteen inches deep and with a sharp spade or knife cut off all the large leading top roots at about twelve to sixteen inches below the crown or top surface roots. But enough for this time.

Yours, etc.,

F. R. ELLIOTT.

[Thanks, friend Elliott, for your contribution and suggestions. We are sorry to hear of that "doleful wail," but cannot say that it surprises us. We did not expect any better from a society which excluded wine from its meetings, thus condemning their own produce, and our old readers will perhaps remember our comments on that part of their discussions in March No. of Vol. I. We regret that

we are unable to present to our readers any part of their discussions, as well as of similar associations at the East, but if the secretaries of grape growers associations see fit to ignore the existence of the only journal in the country devoted exclusively to the grape interest, they cannot blame us if we are months behind other journals to which they send their discussions. If they will also send them to us, we will bring them out as soon as any other horticultural magazine.

We concur with you that long prun-

ing and rubbing out and pinching off the imperfect and superfluous shoots and fruit as they appear, *very early* in the season, is by far preferable to any other method we have tried; we have advocated this long ago and are more convinced of its utility every season.

But we doubt the practical utility of root pruning. It is a very laborious and tedious process, and does not to us seem at all necessary. We have found no difficulty with the training above mentioned, to keep our vines healthy and productive for any length of time.—EDITOR.]

From a Peoria Paper.

PEORIA GRAPE GROWING.

At the grape growers' association yesterday, we took pains to get as near an approximation as possible to the number of vines under cultivation in the county. We believe that the estimate is below, rather than above the actual number. We place them at the following figures:

Strehlow.....	5000
Streibich.....	3000
Kruse.....	2000
Schembs.....	800
Pfeiffer.....	1000
Kneer.....	1300
Moninghoff.....	600
Chase.....	600
Kellerstrasse.....	1800
Lammers.....	1500
Schnebley.....	500
Loncks.....	5000
Wood.....	500
Erler.....	500
Rohmann.....	600
Minsemeyer.....	500
Bock (Sweets).....	5000
Kanne.....	600
Miller.....	1800
Seibold.....	500
Weber.....	800
Distler.....	1800

Relf.....	5000
Selmer.....	400
McDougall.....	500
E. G. Johnson.....	500
Smith.....	300
Anderson.....	300
J. P. Johnson.....	500
Dewein.....	500
Elliott.....	3000
Tinker.....	5000
Haungs.....	8000
Roskofen.....	2000
Studer.....	4000
Cope.....	3000
Pauli.....	1500
Conrad.....	4000
Bryant.....	6000
Baier.....	500
Harrison.....	1000
Gowan.....	500
Lawrence.....	2000
Littleton.....	7000
Boylan.....	500
At Rome.....	9000
Frenchman.....	29 0
Elting.....	1000
Mussing.....	4000
Bartley.....	2000
Fink.....	2000
Kerner.....	1500
Crowell.....	200
Sipp.....	500
Proctor.....	600
All others.....	28000
Total.....	142,300

GRAFTING THE VINE.

BY JOHN J. WERTH.

The importance of this mode of propagating new varieties of grapes, seems to me to require the adoption of more precise rules for its practice than have heretofore been observed. The merely mechanical operation is simply enough; and quite enough has been published to inform the readers of horticultural books and essays how to accomplish it. But the physiological view of the subject is quite important, and has not received (within my observation at least) sufficient attention. I propose then, in a few words, to lay down the axioms which I have derived from analogy, observation and long practice in the art of grafting the grape vine.

First. I hold it to be essential that we should select for the stock a variety of the same species as the graft which we propose to insert. Now I do not mean to assert that a *Vitis Aestivalis* grafted on a *Vitis Labrusca* may not, often times, produce satisfactory results. I know it does. But I do mean to say that if the best results are desired uniformly to follow the transmutation, this axiom should be uniformly observed. The natural instincts and habits of these two families are so widely different, as manifested in their wild state, that it is obviously unreasonable that the best results should follow a forced amalgamation in the first generation, and our aim, in this operation, is limited to the first fruits.

Second. In the selection of the stock, within the indicated family, it

is very important that infirm members, even of the desired family, should be scrupulously avoided. We should no more hope to secure strong, healthy, full bearing vines, by grafting even Hartford Prolific on Catawba or Diana, or Norton on Pauline, (although the first axiom would be in both cases strictly observed) than we should rely upon healthy and robust children from an infirm mother, even though the father was free from all taint. Unfortunately in our own race we have on all sides melancholy instances of the penalty incurred by a disregard of this rule. But still more to the point; no well informed father commits his infant to the nourishment of a wet nurse who is notoriously a victim of serofula in any of its various forms. Then, reasoning by a plain analogy, we should not commit a healthy scion to the nourishment of an infirm stock.

Third. I think it advisable (though I do not make this rule as rigid as the two preceding) that regard should be had, within reasonable limits, to the natural stature and development of the two varieties selected for the union. While it may be well to infuse more vigor into the growth which is to be developed from the graft, if it comes from a weakly growing variety, by inserting it into a stock of somewhat stronger growth, I would avoid a union between two extremes. For instance, I would not graft the Creveling on the North Carolina, an enormous grower, if I had stock of

the Hartford or Concord, both strong but not such exceedingly rampant growers. And I would prefer not to use the Clinton as the stock for an *Aestivalis* of meagre growth, if I had stocks of vigorous but less rampant habits. I think there is such a disease as *plethora* in the vegetable, as well as in the animal constitution. I incline to the opinion that much of the disease of our grape vines is traceable to this cause; and I should fear to provoke it by furnishing to a weakly organized vine a superabundance of nourishment for its digestion and assimilation.

Fourth. This axiom I lay down with more confidence than any other regulating the successful grafting of the vine. It is that the process should be accomplished when the sap is not fluid, but exudes in a gummy state.

This condition of the vine exists, naturally, from the period when the first leaves have unfolded to about one inch in diameter, in the Spring, to the period of the active movement of the sap in the next succeeding Spring. This occurs with us, in Eastern Virginia, generally in March. As a wound in the animal will not granulate, the precedent condition to healing, so long as bleeding is progressing, nor until coagulation of the blood occurs, so the wound in the lacerated vegetable stock will not granulate and unite with the excoriated scion, while the exposed faces of the wounds are washed by the flowing sap.

Therefore, grafting should be accomplished only when the vine no longer bleeds. A condition favorable to grafting, even during the period of the active flow of the sap, may, how-

ever, be secured by removing the stock from the ground, grafting and resetting it. This is called hand grafting, and inasmuch as it is much the most convenient mode, and I have had very uniform success in practising it, I prefer it in all cases where the vine has to be removed.

Where the stocks to be grafted are in the nursery, I would lift and graft them, and plant them where they are to stand, taking the hazard of a few failures, rather than allow them to remain a season longer in the nursery, even with the advantage of selecting those that have attained the strongest growths for removal during the ensuing Fall or Spring. The loss of roots consequent upon the removal, can be better borne under the severe restriction imposed upon the surface growth by the grafting process, than at a later period. Indeed, I am inclined to the opinion that it might be advisable, when grafting a well developed vine of four or more years, to remain where grafted, to subject the roots to a pretty severe pruning; as it cannot be supposed that an extensive development of roots will be sustained in full health under the very limited development of leaf and stem, which occurs during the first seasons growth of the graft.

As my present object is to confine myself to general principles, I will not extend this communication by entering upon the details of the mechanical operation of grafting, the more especially as that has been fully explained and intelligibly illustrated, in the last volume of the *CULTURIST*, by other contributors.

[We are much obliged to our correspondent for this valuable paper, and think the points he elucidates, deserves careful attention. But theories do not always hold out in practice. We will look at them a little closer.

First. Had our correspondent said: I hold it to be *preferable*, instead of *essential*, etc., we should agree with him. But we have grafted Isabella and Catawba stocks with Norton's Virginia and Herkimer scions, fifteen years ago, and never saw, nor do we expect to see, healthier vines, or more productive ones than they are to-day, and have been ever since. Our long experience as a nursery man has led us to come to the conclusion, somewhat against our judgment, we confess, that the scion also exercises an influence over the stock, and gradually changes its nature somewhat. Every nursery man who propagates Siberian Crab Apples, or Yellow Bell-flower, will know that the crab exercises such an influence over the roots, although they were common seedling apples, when grafted, that they became much harder and more brittle than those of other apples. May not the scion on the grape vine change, in like manner, the nature of the stock to a certain extent, and conform it to its requirements? We would, therefore, always *prefer* stocks of the same species, but would not hesitate, if we had no other, to graft upon a different species, although success may not be so certain.

Point 2 we consider well taken, and would advise to follow it strictly.

Point 3, we do not think so important. The best and most healthy Delaware we know around Hermann, is

grafted upon a Norton's Virginia, two varieties, perhaps, as unlike in growth as can possibly be found. We have found, however, that all varieties belonging to the *Labrusca* and *Aestivalis* species, do not take as readily upon the Clinton, a *cordifolia*, although when they take, they seem to form a complete union, and grow very vigorously. We have often improved the habits of weak growers by grafting upon strong growing varieties, made them more healthy in foliage and fruit by so doing. Moreover, we think the Creeling an *Aestivalis*, while the North Carolina is a *Labrusca*; consequently a union between these would be contrary to the first axiom friend Werth seeks to establish.

Point 4, we think important, more so, perhaps, than all the foregoing, and the conclusions arrived at are fully sustained by our experience. We have had the greatest number of failures invariably, if we grafted at the time when the sap was flowing strongly, and, we think, to insure success, it should either be performed *here* in February or March, or postponed until after the expansion of the leaf. The first would be decidedly preferable, as the scions can be kept in better condition, and the graft can form a more complete junction, make a larger growth, and ripen its wood better. If it is put off until after the expansion of the leaf, the scions should be kept dormant, if possible, in a cool place.

We have never had much success with grafting and removing at same time, but others have, and it is certainly a much easier method than

grafting on the stocks in the nursery. But we have never seen any ill effects, if the graft took at all, from the excess of root power in the stock. It seems like if the graft pushed forth so vigorously that it soon absorbed all the nourishment, and we have had

the scion made sound, healthy wood of 25 to 30 feet long, on a very strong old stock. Yet our friend's conclusions are evidently sound logic, but sometimes, as in this case, facts and circumstantial evidence are stronger than even sound reasoning.—ED.]

D'HEUREUSE AIR TREATMENT.

Alleged improvements, involving sweeping changes in many industries, should above all bear the light which close practical investigation may shed upon errors to which new as well as time-venerated doctrines are subject; corroborative tests only can establish their value. Theories, apparently sound, by neglect of some essential condition, may fail to be confirmed by tests. One of the most general and firmly rooted notions has been the dread of access of air during fermenting or preserving operations; the most satisfactory proofs only will establish the fact that exclusion of air should be abolished, and that the suggestion of air-treatment as a safe, cheap, easy and effectual agent for wine and other industries is well founded. For the sake of our American wine industry it is proposed to review the principles on which air-treatment is based, the manipulations, the advantages claimed, and the conditions to be observed, the knowledge of which, by exercise of common sense would enable any unbiased individual to test and judge for himself.

FUNDAMENTAL PRINCIPLES.

One broad principle underlies nearly all applications of air-treatment for

the purpose of imparting stability, and to prevent deterioration in organic substances by a rapidly oxidizing and eliminating action on the albuminous parts, which all crude organic substances contain, so that by ordinary elementary exposure the substance may decompose or decay and thus form, in the admirable economy of nature, sustenance for other organism. The presence of the albuminous parts is an essential condition of decomposition, their removal insures stability, comparatively or absolute. Currents of air passed through the substance to act uniformly on all parts, effect first of all an oxidation of the albuminous matter, which is rendered insoluble and thus eliminated either during fermentation, by which the sugar is converted into alcohol, or by absence of fermentation at a temperature above 135° F., at which organism is killed, or by both modes in conjunction. These few plain intelligible facts constitute the whole basis of air-treatment, the applications are simply deductions.

It is certainly an error that *all* albuminous matter coagulates at a certain high temperature; if this were correct, a fluid so heated for hours could, if clear and limpid, contain no albumen. Expe-

rience plainly contradicts this, for instance, in vegetable or animal extracts obtained by heat, malt or grain wort, saccharine juices, crude oils, fats, etc. Nor do these and other substances containing gluten or albumen acquire stability by mere heating; if, after cooling, the germs of micoderms in the air find access, they cause fermentation or decay, as long as they find albuminous parts to feed upon. These however removed, no micodermic action can take place, and stability is imparted. It thus becomes plain that all manipulations and processes for the preservation of organic matter should go towards freeing them from the albuminous parts, otherwise they remain imperfect and unreliable.

The alcohol of wine is more inclined to turn into acetic acid the less alcohol is present, and the larger the

proportion of gluten. Thoroughly fermented wine generally contains but little gluten, so that the heating process (to 121°-131° F. to kill the micoderms) as a rule forms a protection; however, if not previously fermented dry, the wine will remain sweet, for no known process but fermentation alternates the sugar.

In accordance with the foregoing, wine freed from gluten by air-treatment should have received full protection against future disturbance, and the results obtained corroborate the assumption; not only after but during fermentation, a security is obtained which heretofore was wanting, this most important part of all wine making, the fermentation, placed under the control of time.

(To be continued.)

RECOLLECTIONS.

BY FR. MUENCH.

I was greatly rejoiced at finding in the January number of the GRAPE CULTURIST, two communications from our old and venerable friend, I. B. Garber. In writing these few lines, I intend to send him my heartiest greetings and most friendly wishes from the far West. I shall never forget the day (it was during the Fremont campaign, in the fall of 1856,) when I called at his charming country-

seat, not far from Lancaster, Pa., and for the first time met him eye to eye, and shall ever remember the brotherly kindness with which he received and treated me. He showed me what he had achieved in his younger years, and what he was still aiming at in his old age. We discussed the grape question; it was just the time when the excitement, caused by Mr. Longworth's success with the Catawba, was

succeeded by a universal despondency of the many who saw their expenses and labor unrepaid by that whimsical grape. What was to be done? We had already exchanged, and afterwards continued to exchange what either of us had procured, and placed some hopes upon for final success. It was, however, little more than groping in the dark—noble exertions accompanied by no adequate results. Counted are the days of the Albine, Mary Ann, Garrigues, Louisa, Ozark and hosts of others, then on trial. Yet the unabated efforts of the many friends of the noble cause were not in vain. Step by step we substituted the more valuable for the inferior, and now behold a success of which none of us at that time could have dreamed. Surely, we have not yet accomplished all we desire, and there are still higher aims before us; but how gratifying it is that

even the oldest of us, who from the beginning, and under never ceasing disappointments, fought the battle with all the manifold obstacles, have been spared to see the day when wine growing is no more a play-thing in the hands of the amateur, or a venturesome experiment, but a solid business of large dimensions, giving pleasant and remunerating employment to thousands; gradually working a change for the better in the taste of the mass, in the social life of a whole nation, and raising our people to a higher degree of culture and true refinement, than was attainable whilst whisky was monarch! Who, after once having enjoyed the pleasure of tending the noble vine, and filling his cellar with its precious gifts, would ever renounce it? I for one, if I were to do so, could hardly feel at home in this world any longer.

MARYLAND GRAPE GROWERS' ASSOCIATION.

MR. EDITOR: An informal meeting of a number of grape growers of the State of Maryland was held in the early part of January, at the residence of G. H. Mittnacht, Esq., Pikesville, Md. A number of wines furnished through the kindness of Mr. Mittnacht, were submitted to the taste of those present. They consisted of Delaware, Herbeumont, Catawba, Roger's No. 1 and 9, Norton's Virginia, Clinton, North Carolina and Concord, and were grown by the Bluffton Wine Company, of Missouri. Samples of young wines of Norton's Virginia, Ives and Concord were exhibited by Mr. Charles T. Schmidt,

and of the Concord by Mr. E. P. Hippel. The vineyards of Mr. Schmidt, which were visited by several of those present, were considered as extremely promising. They are elegantly located on the Patapsco river, about six miles from Baltimore, and consist at present of about twenty-five acres, planted principally in Norton's Virginia, Ives and Concord. The condition of the vineyard reflects much credit upon the industry and perseverance of the proprietor.

A temporary organization of a grape grower's association was effected by the appointment of G. H. Mittnacht, of the Lyle Park Vineyards

as president pro tem, and E. P. Hippel, of the Bohemia Vineyards as secretary pro tem. A number of communications had been received from grape growers in the State, and an

early call will be made upon them for a meeting to effect a permanent organization. Respectfully yours,

EDWARD P. HIPPLE,

BOHEMIA VINEYARDS, TOWN POINT, CECIL CO., MD.

From the Horticulturist.

GRAPES IN OREGON IN 1869.

I have just returned from the State Fair at Salem, and deem it a good opportunity to give you some account of the grape culture this year in Oregon. The fair in all its departments was a grand success, and was attended by a vast concourse of people—estimated at 25,000. The show of flowers, vegetables and fruits, was very fine. Of grapes, I saw some thirty-five varieties, comprising the best native and foreign kinds, all grown in the open air, and thoroughly ripened. Magnificent bunches of Black Hamburg, Royal Muscadine, Chasselas Rose, and Chasselas Violet, hung side by side with Concord, Delaware, Iona, Israella, Hartford, Creveling, etc., all equally healthy and beautiful. Of course, the earlier kinds, as Allen's Hybrid, Black July, Hartford, Red Traminer, etc., were more or less shriveled, having been ripe fully two months. Chasselas Rose, Black Spanish, and White Muscat were barely ripe. I was particularly pleased with the Traminer a grape somewhat resembling the Delaware, but with larger bunches and a great bearer; in quality it is first-rate. Of native varieties, the Allen's Hybrid with me is the earliest, and I think best; but it is hard to decide between that and Delaware. Tons of grapes were offered for sale

on the fair ground. I bought Black Hamburgs, averaging one and a half pounds to the bunch, for six cents per pound. The best vineyard in Oregon is situated near the Willamette river, at Butteville. It occupies the southeast slope of a high butte or hill, which rises out of the prairie. The vines, comprising about fifty kinds, all foreign, are planted about three feet apart each way, and are cultivated entirely by hand, and are trained to stakes. The pruning is very simple. Two or three canes are allowed to grow this season, and at the pruning season one of them is cut back to six or eight buds for fruiting next year; one of the others, with the cane which bore this year, is cut entirely away, and the remaining cane is cut to two or three buds, to grow two or three canes next year. The bearing canes are not tied up, but are allowed to lie on the ground with their load of fruit, and in consequence some of the grapes were damaged by our early rains. I visited this vineyard in September, and at that time the whole face of the hill was literally covered with the beautiful clusters, some of them weighing four pounds, and of all colors. It was a beautiful sight, and interested me exceedingly. A. R. SHIPLEY.

Oswego, Oregon, October 30, 1869.

From the Horticulturist.

TEST OF GRAPES AT NEWBURG.

In the November number of your valuable journal, you called the attention of your readers to the exhibition of the Newburg Bay Horticultural Society, and the display of fruits and grapes exhibited there. In this vicinity, the subject of grape culture is exciting a more than ordinary degree of interest, and is made a specialty by several of our horticulturists, prominent among whom is James H. Ricketts, whose display of fruits and grapes at the exhibition contributed so largely to its success.

Mr. R. has labored with care and patience, and we think with some measure of success, in improving the quality of our native grapes, both for table and wine making. We have thought that a statement of his progress in that direction might prove of interest to some of your readers. For several years past he has been hybridizing with great care, and at our last exhibition produced a few bunches of a hybrid grape, now in its second year from the seed, which gives promise of superior excellence for table use. He has also, now in its second year of bearing, a seedling grape, which we are inclined to think possesses unusual qualities for the purpose of wine-making.

This fall, after the grape had matured, he invited a number of his friends to meet with him while he pressed the grape, and tested the must. We were present, with Mr. Charles Downing and others, as witnesses. The must, pressed from this

young seedling grape, registered one hundred and six and a half degrees. The wish having been expressed to see it compared with other grapes raised by Mr. Ricketts under similar circumstances, we proceeded to test the following grapes with these results, namely:

Rebecca	69	degrees.
Hartford.....	71	"
Concord.....	73	"
Isabella.....	76	"
Maxatawny.....	76	"
Catawba	80	"
Herbemont.....	88 $\frac{1}{2}$	"
Diana.....	91	"
Iowa.....	94	"
Lenoir.....	95	"
Clinton.....	97 $\frac{1}{2}$	"
Delaware.....	113	"

The instrument used was Oechsle's must scale. The grapes were all raised by Mr. Ricketts, except the Clinton, and were in fine condition. The Delawares were especially well ripened, and considerably shriveled. The must of the seedling is a deep but pure bright red, comparing most favorably in color with any we have ever seen. Its promise is spoken of most favorably by experts who have seen it.

S.

NEWBURG, N. Y., November, 1869.

[A very interesting report, and we would like to hear more of this new candidate for making red wine. Should like to test it here and report.—ED. G. C.]

GERMAN WINE SONGS.

The inhabitants of the German "Vaterland" have been renowned, from time immemorial, not alone as diligent cultivators of the grape and ready consumers of its precious juice, but also for their innumerable wine songs, which the latter had inspired. We are sorry to say that our poetic vein, if we ever had one, has long ago ceased to flow, or we would be pleased to translate and transpose some of the many gems of that kind, with which our German literature abounds. The following excellent translation of one of the most popular, we cull from our "scrap book," for we wish our readers to enjoy the quaint humor which pervades it throughout, and which the translator has rendered with a fidelity, which makes the translation nearly as good as the original of Kopisch. It is called:

FATHER NOAH, THE FIRST WINE GROWER.

When Noah left his floating frame,
Our Lord to father Noah came;
He prized his pious offering,
And spake: "Thou 'st done a goodly thing,
And, to reward thy piety,
Thou may 'st e'en choose a boon from me."

Then to the Lord old Noah said:
"The water now tastes rather bad,
The whilst there have been drowned therein
All beast and mankind in their sin;
'T is, therefore, Lord, I even think,
I should prefer some other drink."

Whereat the Lord to Eden went,
And brought him thence the grape vine's plant,
And gave him counsel and advice
To tend this shrub of Paradise,
And bid him nurse it carefully;—
It pleased old Noah wondrously!

He made a solemn household call,
And summoned wife and child and all,
And planted vines, where'er they 'd grow;
Forsooth, old Noah was not slow,—
He pressed the grape and built a cave,
And put it into casks to save.

Old Noah, grateful for the boon,
Cask upon cask did open soon,
And with sincerest piety
Did empty them most willingly,
And drank yet, since the flood was o'er,
Three hundred years and fifty more.

This to each prudent man does show
From drinking wine no harm can flow,
And Christian folks it warns more o'er,
No water in their wine to pour,
The whilst there have been drowned therein
All beast and mankind in their sin.

WE acknowledge the receipt of an invitation to be present at the fiftieth birth-day of D. D. T. Moore, and twentieth anniversary of the *Rural New Yorker* on Wednesday, February 2, at his residence in New York.

We regret that we could not be present at the celebration of such a happy event, but wish friend Moore many pleasant returns of the day, and that he and his paper may live and prosper as they so well deserve.

ED.

OBITUARY.

Died suddenly at his residence near Hermann, on the 9th of February, of paralysis of the heart, William Poeschel, in the 42d year of his life. This announcement came all the more unexpected to us, as we had had the pleasure of a visit from the deceased only two days before, and though he had been ailing for several years, we did not expect so sudden a termination of an eminently useful life.

He was one of those earnest, thinking and working grape growers, who, with but an indifferent education, but with indomitable industry and perseverance, make their way against all obstacles, and achieve success. Commencing in 1849, on an uncultivated piece of land near Hermann, with but very small means, except his own industrious and ever-willing hands and brain, and the help of a young and equally industrious wife, he planted his first vines, Catawbas, in 1849, made his first wine, about one hundred and fifty gallons, in fall of 1851, and stored in casks buried in the ground, as he had not funds enough to build a cellar. We made his acquaintance in 1852, on our return from California, tasted of his first wine, and as our pursuits and inclinations tended to the same objects, soon became fast friends, and frequently exchanged ideas and experiences. Poeschel was a very close ob-

server, an indefatigable experimenter and could reason soundly upon his experience. We gratefully acknowledge that we have learned much, very much, from him. He it was who first called our attention to the vast importance of *early* summer pruning and thinning the fruit; he was without a doubt, one of the best, if not *the* best, grape growers around Hermann, and his vineyards and orchards soon became famous, as well as his wines. We have tasted of every vintage, except his last, and can justly say, that we generally found them at the head of the list. But in his zeal, and his anxiety to perform all the nicer operations himself, he often spent whole nights in the cellar, watching the fermentation of his young wines, and this more than anything else, undermined his naturally strong constitution, and made him an invalid for the greater part of the last three years. We heartily sympathize with his afflicted family, a wife and seven children, in their sad bereavement; and feel that one has left our ranks, whose place is not easily filled, one of the most useful members of society, and who has done much, by the silent teachings of his practice, to advance American grape culture, and win a "habitation and a name" for American wines.

ED.

WE call the attention of those of our grape growing friends, who wish to obtain trellis wire and staples, to the card of Messrs. Sellew & Co., in our advertising columns, and think that they will find it to their advantage to

get their supply from that firm, who are the agents of the Washburn & Moen Manufacturing Company, of Worcester, Mass., and an old and reliable firm.

ON OUR TABLE.

We are crowded with exchanges, catalogues, and all kinds of favors from friends, and confess our utter inability to notice them all as they deserve, although we would like very much to do so. But a few of the most prominent we cannot omit to notice.

Second Revised Edition of "Downing's Fruits and Fruit Trees of America. This splendid work of nearly 1,900 pages, of the size of a family bible, was sent to us by friend Downing, and is a striking evidence of the indefatigable industry and comprehensive knowledge of this veteran pomologist. Our readers can form some idea of the vast field reviewed, if we inform them that the index of fruits alone occupies 90 pages, double column. The task, so well begun by A. J. Downing, has been worthily completed by his indefatigable brother, and a sort of awe creeps over us when we think of the immense labor, the earnest research and vast knowledge requisite for such a task. That slight mistakes should occur in a

work as comprehensive as this, is but natural, and we are only surprised that there are not a great many more. Altogether it is an indispensable work to every pomologist, and the most reliable guide in nomenclature we possess.

Scraps. This is the title of a small volume, compiled for circulation among the patrons of the *Monthly Statistics*. It contains legends, songs, etc., mostly translated from the German, and the song Noah's Legaey, which our readers will find in our next number, is a sample of one of the translations. We intend to cull more from its pages.

Second Annual Report Illinois Industrial University. This seems to be a very flourishing institution, and sets our State a noble example to quit wrangling over the location of our agricultural college, but locate it and work it judiciously. It contains many valuable essays from Warder, Hull, Flagg, and others equally well known in horticulture and agriculture.

ZYMOTECHNIC NEWS.

The first No. of this new Monthly is before us, and contains the following articles: "Chemistry of Fermentation," "Zymotic Fungus," "Racking off Wine," "Improvement of Wine by Electricity," "Calculation of the absolute per centage of sugar in Must," "Glycerine in Wine." These relate to our specialty, wine; there are besides a number of articles on brewing, manufacturing of spirits, vinegar, etc.

Mr. Frings informs us, that the first number was unavoidably delayed, but that the second will follow immediately, and that his subscription list is increasing rapidly. As the grape growing public needs all the information obtainable on these important subjects, we hail this accession to our list of exchanges with pleasure, being satisfied that a great deal of knowledge can be culled from its pages.

EDITOR'S LETTER BOX.

ARENZVILLE, January 29, 1870.

MR. GEO. HUSMANN, Bluffton, Mo.:

Dear Sir: In the December number of the GRAPE CULTURIST, you are expressing a doubt, whether you will continue the publishing of the GRAPE CULTURIST or not; but I would say, "Do not give up the ship," and I hope that you will get enough subscribers, so that you will be enabled to go ahead with it. Please set me down as one of your subscribers. I would enclose you the subscription price, but I have hopes of getting up a small club here, and I will send the money together.

I see in the description of varieties you give in one number of the GRAPE CULTURIST, that you have not fruited the Miles there. I will give you my experience with it. About three years ago I received of George W. Campbell, of Ohio, among others, three vines of the Miles. They grew well, and this last summer they bore a small crop of grapes, bunches small, berries medium, of a poor frost flavor. It has nothing to recommend it, save its easiness of propagation of the wood, of which every eye, with a little care, will grow, and make a strong plant in one year. It is a day or two earlier than Hartford, but can bear no comparison with it in yield and quality of fruit. I don't want it.

Mottled bore a few bunches of small size, berries medium, finely colored, but the vines lost their leaves too soon. I cannot call it valuable. Could I have but three grapes for table and wine, I would select, with my present experience, the following:

Creveling, Delaware, Cynthiana; with three more, they would be Concord Hartford, Norton's Virginia; but have also good hopes of the Martha, Herbeumont, Rulander, and some of Rodger's Hybrids, all of which fruited with me the last summer.

If I can make it convenient next summer, I shall visit Bluffton and Hermann sometime.

Yours truly,

HENRY TIEMEYER.

[Thanks for your notes on those grapes. Shall be glad to see you any time.—ED.]

WARSAW, ILL., January 31, 1870.

EDITOR: I have an acre of Catawbas that have never succeeded very well that I intend to take up in Spring, and would like to have you name some grape to replace with. I want a grape that is hardy, that will make a white wine, and that will also do for market. The land lays on a ridge, about 100 yards wide with deep hollows on each side. Is a blue or gray loam with clay subsoil. Have now Concord, Clinton and Norton's. Have seen Martha and Rogers' No. 1 spoken well off; which of the two is best for me. Respectfully, SUBSCRIBER.

[Both of the varieties you mention would, we think, suit your purpose; they are both so good that we are undecided which to give the preference. Goethe is the largest and most showy grape of the two, ripens late, and will keep well. Martha ripens before the Concord, and would do well for earlier marketing. Plant both and you cannot go amiss.—EDITOR.]

BRIGHTON, Feb. 10, 1869.

MR. GEORGE HUSMANN:

I was gratified to see you recommend, in the *CULTURIST*, racking off wine from the lees. There has long been a tradition that wine had better stand on the lees after fermentation, perhaps derived from a passage of Scripture. My experience in wine-making is quite limited; have experimented only the last two seasons: have had a good deal of practice fermenting, refining and tampering with cider for thirty years, and I know there is nothing so injurious to cider as to allow it to stand on a bucket full of nasty, sour sediment in the bottom of barrels; it sours immediately, and affects the whole. I never could conceive why it should not affect wine in the same way.

If we could learn some process by which we could perfectly fine wine and cider immediately after fermenting, it would be one of the most useful discoveries ever made.

I was also gratified to hear you recommend longer pruning of the vine; to leave twice as much bearing wood as has been the common practice. It is the opinion of many of the best grape growers in Ohio that the Catawba wine was ruined by too much cutting; I think there is truth in that; such strong growers as the Concord have such an immense root power to throw up sap, it requires more wood and foliage to receive and elaborate it, not necessarily more bunches. I am aware there is such a thing as overworking a vine the present season, so as to injure it for future crops. This may be remedied by thinning the bunches when small.

I wish to ask a question: I have been fall plowing my Concord vines, planted eight feet each way. In plowing deep between the rows, I find it cuts and mutilates the ends of the roots some; does it injure them or not? As root pruning is becoming popular it occurred to me that if I call it root pruning it might not injure them.

A. A. HILLIARD.

[We think the excellent article of Mr. D'Heureuse, which we publish in this Number, will give us a method of racking our wines earlier than it has been done so far. The overbearing of the vine can be prevented by early pinching, leaving only the finest bunches and most vigorous shoots.

We have been plowing vines in the fall for fifteen years, and think it a very important operation. It covers all the leaves, and thus lightly manures the vines with the most grateful food they can have, exposes the soil to the ameliorating influence of the atmosphere, serves as a partial protection to the crown of the vine, and prevents washing. We have never plowed so deep as to lacerate the larger roots, and do not think it injurious if some of the surface roots are cut at that distance from the vine, as they will throw out smaller spongiodes in spring. The operation has always benefited our vines very much, and, as the saying is, "The proof of the pudding is in the eating," we think we can safely recommend it.—En.]

PEORIA, Jan. 30, 1870.

MR. GEORGE HUSMANN, Bluffton:

Dear Sir.—Inclosed find \$2 25 for your *GRAPE CULTURIST* and the German edition of the *Zymotechnic News*.

Allow me at the same time a few remarks about those papers. Your GRAPE CULTURIST I think is necessary for every one who cultivates the grape, and I know from experience it has done and will do good. But, my dear sir, please remember that you find among all the grape growers in this country three-fifths whose experience in grape growing is but a few years old, therefore give us your GRAPE CULTURIST in the most plain, distinct, and clearest way possible. You will always have among your readers a goodly number who do not know the meaning of "renewal system of training," "spurrengin," "spur pruned," and other such expressions. How few of your readers know anything about making wine, and also about a good many expressions related thereto. Please tell us this year in plain words how to train best the different varieties, how to raise spurs on old arms for the, as you say, "Cordifolia" class, (why not "Frost Grape?") and how to treat each variety of grape best to make it into wine, how to handle must, to weigh it, how warm it ought to be, and whether the must to be weighed, has to be filtered, and all such things.

I have growing about 2,000 apples, 500 pears, plums, etc., about 5,000 grape vines, some forty varieties, all planted with my own hands in the last six years, and most of it raised myself, because I am a poor man. Now, I have to know how to make wine, cider, vinegar, etc., and to make good articles which can be sold. Will the "News" teach me those things? I am afraid not; they may be good enough for those men who know how to make these things, and, as that sample copy

says, will tell such producers the new improvements and discoveries; but I wish before anything it would give us the A B C in such matters. There are hundreds and hundreds in such situations, and almost every year thousands of dollars worth of fruit is gone to waste, because we don't know how to produce a merchantable product of it.

Yours truly. ED. ROELFS.

[We confess that the above acted rather depressing upon our feelings, for several reasons. We had so far been vain enough to suppose that we could write plain English, nay had even thought we were *too* plain sometimes, to judge from letters received from others: we had also believed that *all* of our grape growers could understand us, and that nearly every one was familiar with the meaning of such words as our correspondent mentions; and, lastly, we thought that the letter box was open to every one, if he wished information, to ask it, and we would try to furnish it. We judge, however, from the tone of his letter, that he is not ignorant of the meaning of *all* the terms, and if he will ask information on "one at a time," we will try and give it to him or any one else of our readers, in the plainest terms we are able to use. Therefore, good friends, send in your questions and we will answer if we can; although we do not profess to "know every thing," and hope to learn a good deal from you. Of course, we cannot say what the "Zymotechnic News" will do, but we know friend Frings to be accommodating, and think he will also try to inform you as "well" as he knows how. Thanks for the interesting statistics sent. Can you not also tell us how

many acres were in bearing in your neighborhood, what they produced, etc.? We want all such facts.—EDITOR.]

CLINTON, HENRY CO., Mo., January 26, 1870.

MR. GEO. HUSMANN:

Dear Sir: I have two acres of Norton and Concord, and as promising a young vineyard as I ever saw. My Concords bore a few bunches last year, and all my vines made an immense growth of wood. I have about 100 Taylor's; they have run over all creation, and although only two years old, (some of them) have canes near the ground as big as a child's wrist. I am at a loss how to prune them, having neglected it till now. You say in your work "it requires long pruning on spurs to bring out its fruitfulness." Not being a vine dresser of very long experience, I am not quite sure that I understand your meaning, but suppose it to be to prune the main cane long, leaving two or three buds on a number of spurs. If it would not be trespassing too much on your valuable time, will you write me just a few words on this subject. Your attention to this will greatly oblige your friend and obedient servant. Wm. A. DUNCAN.

P. S. Seriously is the Norton and the Cynthiana identical? D.

[You are correct in the treatment of the Taylor you propose. Leave the main canes long, and cut back the side branches, or laterals, to from two to five buds each, according to their size and strength. Leave these old arms, if they have produced healthy, vigorous young shoots; the next year cut out the weak, imperfect wood, and then cut back the strongest of the young shoots, to two to three eyes. They will not produce their best fruits until the fourth and fifth seasons after planting.

The Cynthiana and Norton are not alike, although very similar in growths and foliage. The Cynthiana berry is

somewhat larger, bunch more compact and shouldered, sweeter, and makes a much more delicate wine, of different flavor from the Norton, decidedly; to our taste, the best red wine yet produced in America.—EDITOR]

MACON CITY, February 10, 1870.

MR. GEO. HUSMANN, *Bluffton*:

Sir: My object in writing is to ask your opinion in regard to grafting the grape. I have read your work on grape and wine, but there is still room for improvement. This differs in inserting the graft on the side instead of splitting the stock as shown in your work on grape. You will see the enclosed is inserted a sufficient distance below the rim or crown so as not to break the rim of the same, allowing also a greater number of grafts to be inserted on the same stock.

Please answer by return mail.

Yours respectfully,

J. E. McLAUGHLIN.

[We are well aware that there is much "room for improvement" over our little work published in 1866. We are progressing so fast in grape culture that any book, however timely when published, will soon fall behind the new discoveries. Besides, it gives only the author's views, and is therefore necessarily somewhat one-sided. It was to obviate this that we started the GRAPE CULTURIST, in which all can give and exchange their ideas, and which can keep its readers "posted" on all new improvements. The process of grafting you describe, is a good one, as the sap vessels are cut through obliquely on the stock, as they are in the scion, and thus gives a better chance for uniting and an uninterrupted flow of sap. It is better adapted to small stocks, however, than old vines. You will find it described in February No., page 41, of Vol. I, G. C. which we send you.—EDITOR.]

Club Rates.

By special agreement with the publishers, we are enabled to club the GRAPE CULTURIST with the following journals, at the annexed rates:

Grape Culturist and Journal of Agriculture	.....	\$ 3 00
" " American Entomologist	.....	3 00
" " Colman's Rural World	.....	3 00
" " Horticulturist	.....	3 50
" " Zymotechnic News (English and German)	.....	2 25

To those sending us the names and post office address of six subscribers, we will furnish the sixth copy *free*.

Vol. I. will still be furnished at the reduced rate of \$1, *complete*. To those who desire it bound, we will furnish it bound in muslin, with index and title page, at \$2.25, post paid; or they can be supplied with the cover at \$1.00 each.

Cash Advertising Terms for 1870.

TWENTY CENTS PER LINE, AGATE TYPE, EACH INSERTION.

Cover Pages Twenty-Five Cents per Line.

BUSINESS CARDS, FIVE TO SIX LINES EACH, \$15 PER ANNUM.

FRUIT GROWING FOR PROFIT.

Everybody can have the benefit of thirty years' experience, in my new Descriptive Catalogue of 36 pages, for 10c. It tells what and how to plant. WM. PARRY, Cinnaminson, N. J.
mar79-1t

GREENHOUSE AND BEDDING PLANTS.

Our new Illustrated Catalogue, containing lists of Stove and Bedding Plants and Flower Seeds, Hardy Herbaceous Plants, Dahlias, Gladiolus, Lilies, and other Bulbs, is now ready, and will be mailed to all applicants. Postage prepaid. Address MICHEL BROS. & KERN,
107 North Fifth Street, St. Louis, Mo.
mar70-tf

HAVE YOU GOT MARTHA?

GRAPE VINES AND SMALL FRUITS.

[Nursery Established in 1857.]

A splendid stock of Vines and Plants are offered the coming Fall and Spring, including nearly every variety known to be of value. The popular and white Grape

MARTHA, OR (WHITE CONCORD,)

In large or small quantities. Also, Arnold's new Hybrids, Eamean, Walter, Weehawken, Christine, Hine, and all valuable numbers of Rogers' Hybrids; also, Delaware, Iona, Isabella, Concord, Hartford, Ives, Norton's Virginia, etc., etc., in all about one hundred distinct varieties.

Kittatinny Blackberries and Clarke Raspberries in large quantities, Jucunda and Charles Downing Strawberries, Downing's Seedling Gooseberries, Cherry, Versailles, White Grape, and Black Naples Currants, etc., etc.

Send stamps for Illustrated Catalogue and Price Lists to

apr69-tf

GEO. W. CAMPBELL, Delaware, Ohio.

CHOICE VARIETIES OF
Grape Vines, Strawberry Plants, Raspberry, Blackberry & Gooseberry.

Also, a few Peach and Cherry Trees, the finest growths. Particular attention will be paid to small orders of plants to be sent by mail. For sale by

SAMUEL MILLER, Bluffton, Mo.

ZYMO TECHNIC NEWS.

A Monthly Journal

For all Branches of Fermentic Arts—Manufacturing of Wine, Beer, Spirits, Vinegar and Yeast.

THE "ZYMO TECHNIC NEWS" will give a detailed record and discussion of all improvements which obtain publicity, both in the Old and New World. The more important ones of these improvements will be subjected to the most careful tests in the chemical laboratories and technic establishments, amply at the editor's disposal, and the results thus gained will also form part of the communications of the "ZYMO TECHNIC NEWS."

The "ZYMO TECHNIC NEWS" will appear both in ENGLISH and GERMAN, and the yearly subscription for each one of the two editions is but \$1 in advance.

ONLY ONE DOLLAR A YEAR!

All Business Men standing in any practical relations to Zymotechnic Pursuits, more particularly Producers of Wine, Brewers, Distillers, Rectifiers, Wine and Liquor Dealers, Vinegar and Yeast Manufacturers, ought to subscribe for a copy of the "ZYMO TECHNIC NEWS" in order to rest assured that nothing new in the technical appliances of their pursuit will escape their notice. If but once in a while a *single* item of interest and value to themselves has been made available, the small expense of \$1 a year will have possibly been repaid a hundred-fold in a short time.

All letters and remittances are to be directed to the undersigned.

N. B. Correspondence conducted in English, French and German.

CHAS. H. FRINGS, Editor,

P. O. Box 2,742.

St. Louis, Mo., December, 1891.

202 South Fourth Street.

Jan 70-ff

FENCE AND GRAPE WIRE.



STAPLES, run 72 to the pound. 14@15c per lb

8		Weights 7½ pounds to 100 feet, or 389 pounds to the mile.	....	7½	"
9		" 6	" 100	" 323	" 7½c "
10		" 5	" 100	" 264	" 8½c "
11		" 4	" 100	" 211	" 8½c "
12		" 3	" 100	" 163	" 9c "

A large stock on hand and for sale in quantities to suit, by

R. SELLEW & CO.,

805 N. Main Street, St. Louis.

GRAPE WOOD

FOR

GRAFTING OR PROPAGATING.

CYNTHIANA.....	\$ 5 00	per 100.....	\$35 00	per 1,000 eyes.
HERMANN.....	10 00	"	75 00	" "
MARTHA.....	3 00	"	25 00	" "
DEVEREAUX.....	2 50	"		
RULANDER.....	2 50	"	20 00	" "
LOUISIANA.....	2 50	"	20 00	" "
MAXATAWNEY.....	1 00	"	8 00	" "
TELEGRAPH.....	1 00	"	8 00	" "
CASSADY.....	75 cts.	"	6 00	" "
CREVELING.....	75	"	6 00	" "
GOETHE.....	75	"	6 00	" "
IONA.....	75	"	6 00	" "
ISRAELLA.....	75	"	6 00	" "
LINDLEY, (Rogers' 9).....	75	"	6 00	" "
MASSASOIT, (Rogers' 3)....	75	"	6 00	" "
MERRIMACK, (Rogers' 19)...	75	"	6 00	" "
NORTH CAROLINA SEED- LING.....	75	"	6 00	" "
ROGERS' HYBRIDS, Nos. 2, 8, 12.....	75	"	6 00	" "
SALEM.....	75	"	6 00	" "
WILDER, (Rogers' 4).....	75	"	6 00	" "
HERBEMONT CUTTINGS, 9 to 12 in., trim'd ready for plant'g	10 00	per 1,000.		
DELAWARE	"	"	10 00	"
HARTFORD PROLIFIC	"	"	5 00	"
IVES'	"	"	5 00	"

Cuttings will be shipped by express or freight, and an additional charge of 30 cents per 1000 for boxes and packing be added. Freight to be paid by purchaser.

WE HAVE A LIMITED QUANTITY OF

WOOD FROM BEARING VINES, From our former Vineyards at Hermann, for Sale.

All who wish to try them, will be furnished at the above rates, by addressing
Small packages will be sent by mail, post paid.

GEORGE HUSMANN,

BLUFFTON, MO.

THE HORTICULTURIST

AND

JOURNAL OF RURAL ART AND RURAL TASTE.

(ESTABLISHED BY A. J. DOWNING, 1846.)

Devoted to Horticulture, Landscape Gardening, Rural Architecture, Rural Embellishments, Pomology, Floriculture, and all subjects of Rural Life, Literature, Art and Taste.

HENRY T. WILLIAMS, Editor and Proprietor.

SUBSCRIPTION TERMS.—Regular Subscription, \$2.50 per annum. Monthly Numbers, 25 cents. N. B. All subscriptions strictly in advance. To prevent loss of money through the mail, subscribers will please transmit Check, Draft, or Postal Money Order for amount. We cannot be responsible for sums sent in any other way and lost.

CLUB TERMS.

3 copies to 1 P. O. address, \$1.75 [\$2.25 each]. 10 copies to 1 P. O. address, \$17.50 [\$1.75 each].
5 " " " 10.00 [2.00]. 20 " " 1 " 30.00 [1.50].

An extra copy sent free to the former of clubs of five, ten or twenty subscribers. Illustrated Prospectus free on receipt of Postage Stamp. ADVERTISING RATES—25 cents, per agate line, each insertion. Address, HENRY T. WILLIAMS, 7 Murray street, New York. P. O. Box, 2445. The Horticulturist for 1869 and 1870, unbound will be supplied at \$4.50. Bound volumes for 1869, \$3.00 each.

D'HEUREUSE AIR TREATMENT.

PATENTED AUG. 6th, 1867, AND AUG. 3d 1869.

For FERMENTATION and GERMINATION, and for PRESERVING, PURIFYING and IMPROVING of Organic Substances.

Exceedingly useful in Malting, Brewing, Distilling, Baking, Manufacture of Wine, Cider, Fruit Wines, Fruit Brandies, Vinegar, etc.; in Sugar Works, Oil Works, Manufacture of Extracts, Preserves; in Storehouses, Transportation of Grain, Produce, Fruit; Purification of Water, etc., etc.

Rights for States, Counties, Districts, or Establishments, for sale. Apply to

P. O. Box 6844.

R. D'HEUREUSE, New York.

PUBLISHED AND FOR SALE

BY

CONRAD WITTER,

ST. LOUIS, MO.

MUENCH, FREDERICK, *School for American Grape Culture.* Brief but thorough guide to the laying out of vineyards, the treatment of vines and the production of wine in North America.

MUENCH, F., *Amerikanische Weinbauschule und Weinbereitungslehre, etc.*

Either one of these books will be mailed free of postage on receipt of one dollar.

HUSMANN, GEORGE, *The Cultivation of the Native Grape and Manufacture of American Wines.*

On the receipt of \$1.50 this book will be mailed to any address.

SCHMIDT, J. A., *The Diseases of Wine*, how to prevent and how to cure them, according to the doctrines of M. Pasteur.

This book will be sent, free of postage, on receipt of \$2.

C. WITTER keeps a large assortment of books treating on the Culture of Grapes and Manufacture of Wines.

Catalogues sent on application. Please address letters,

CONRAD WITTER,

122 S. E. corner Walnut and Second Sts., St. Louis.

GRAPE VINES AND SMALL FRUIT,

Warranted Genuine and of Superior Quality, in Large Quantities, at Reduced Rates.

CONCORD.....	per 10,000.....	\$250.00	MARTHA, extra strong.....	per 100.....	\$ 75.00
".....	per 5,000.....	125.00	CYNTHIANA, "	per 100.....	100.00
".....	per 1,000.....	35.00	IVES, "	per 1,000.....	50.00
HARTFORD PROL.....	per 1,000.....	45.00	".....	per 100.....	6.00
".....	per 100.....	6.00	RULANDER, "	per 100.....	30.00

For prices of all other Varieties, we refer to our PRICE LIST (*gratis*), and to our new ILLUSTRATED DESCRIPTIVE CATALOGUE, containing valuable information on grapes and grape culture, which will be mailed, free of postage, to any address, on receipt of 25 cents.

A GERMAN EDITION of same, by Fr. Muench, price 25 cents (less than cost), has just been published

Please address

Jan69-tf

ISIDOR BUSH & SON, Bushberg, Jefferson Co., Mo.

GRAPE VINES!

The Bluffton Wine Company

Offer a large stock of thrifty, finely rooted GRAPE VINES of all valuable and popular varieties, together with all novelties in this line.

Large quantities of leading varieties will be furnished at a very liberal discount on list prices.

Descriptive priced Catalogues sent to any address on application to

WILLIAM WESSELHOFT, Secretary,
Bluffton, Missouri.

jan69-tf

TOBIAS WEIGOLD, COOPER,

1618 Jackson street, St. Louis, Missouri.

Offers his services to Wine Dealers, as manufacturer of all kinds of casks, fermenting vats and cellar apparatus. He guarantees satisfactory work and lowest prices. Refers to some of the principal wine dealers in the State of Missouri, for whom he has made casks and vats for a number of years, and especially to the Bluffton Wine Company, No. 22 South Main street, where casks and vats of his manufacture can be seen by those interested in the business.

feb69-tf

GRAPEWOOD TWENTY KINDS!

Immense Stock, especially of

Concord, Ives, Delaware, Hartford, Iona, Catawba, Isabella, Clinton, Rogers' Nos. 4, 15 and 19, etc.

Cut from Bearing Vines before hard freezing, and stored in frost-proof Cellars.

Very Low for Cash. Price List Gratis.

ALSO, LEADING VARIETIES OF GRAPE ROOT IN STORE.

Can ship South safely at any time.

M. H. LEWIS, Sandusky, Ohio.

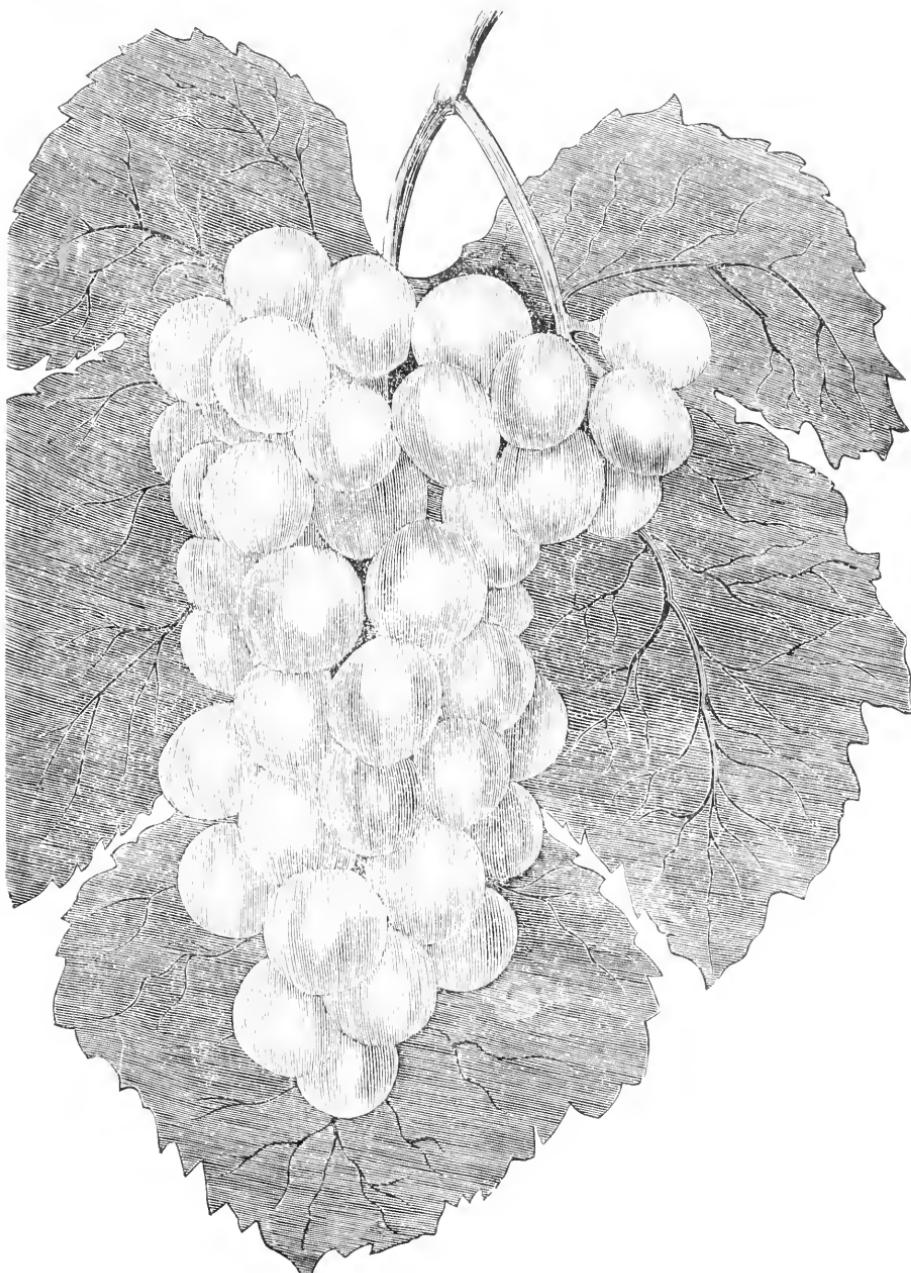
feb69-tf

THE GRAPE CULTURIST.

VOL. II.

APRIL, 1870.

No. 4.



THE MAXATAWNEY.

THE MAXATAWNEY,

A chance seedling, originated at Eagleville, Montgomery county, Pa., as early as 1844, and it is strange that a variety possessing so much merit has not been more generally planted and cultivated. At the East it seems to be most too late in ripening, and this may have worked against it. Here it is early enough, ripening before the Catawba, moderately productive, a fair, although not rampant grower, uniformly healthy and hardy, and if we add to this its excellent quality, we must call it the *best white grape* we now cultivate. It will not bear as much as the Martha or Goethe, but it is better in quality; in fact, *the best of all grapes we know, that are entirely healthy, hardy and reliable.*

Bunch medium size, long, rather loose

sometimes, but not always, shouldered, berry medium, oval, pale yellow, with an amber tint on the sunny side, translucent, skin thin. Flesh tender, not pulpy, sweet and delicious, resembling White Chasselas, few seeds, quality best for the table, and we have tasted wine made of equal parts Maxatawney and Martha, which was exquisite indeed. At the Wine Trial at Hermann, in 1868, a bottle of Maxatawney wine, made by Mr. Jacob Bommel, took the first premium as best white wine on exhibition.

Vine a good grower, foliage healthy even the last extremely trying season, not a very early bearer, will generally not produce a full crop before its fourth summer, and will propagate readily from cuttings.

APRIL.

WORK FOR THE MONTH.

In April, most of the operations discussed in the March number, and not performed or finished in that month, may be continued. Making trellis, tying, planting, plowing and hoeing, layering, etc. The sooner these operations are performed, however, the better it will be. Always try to be ahead with your work, especially in spring, for when the vines once begin to grow, you will have enough to do with summer pruning, tying the young growth, destroying weeds, and keeping your ground in order. With one hour's labor done in advance you may save the work of days, when you have once got behind.

The old adage, "A stitch in time saves nine," could easily be remodeled and applied to vineyards. Laggards had better never commence grape growing; it will certainly *not pay for them*. But, if the diligent vintner should, from causes beyond his control, get behind with his work, our advice is to him, "Try and get additional help, until you have caught up again, for it will be an immense saving of labor, time, and money in the end."

Grafting may still be continued, even into May, but you must take care to keep the scions in a cool place, and in a dormant position. Covering layers

may be done as soon as the young growth has started about a foot, which, in our latitude, will not be until the middle of May. In the South, no doubt, April is the time, and as we try to write for the *whole country*, we shall often describe the necessary operations ahead of time for northern localities, always describing the stage of growth, however, so that they also can easily know when it should be done. Cover with well pulverized earth, about two inches deep over the old cane. If you can mulch with spent tan or saw-dust, it will be a great benefit to the plants during the heat of summer, and assist the formation of roots.

For the South, *summer pruning* will also commence during April. But, as this is a *very important* operation, we have tried to discuss it more at length in a separate article, to which we refer our readers.

Surface drains should be carefully cleared of all obstructions, and new ones opened where necessary. As soon as weeds show themselves, the plow and hoe should be resorted to again, and the ground kept in a mellow and friable condition. But do not work the ground *when wet*; it will act like poison on the vines, and you can not again get the ground into the same condition during the whole summer.

SUMMER PRUNING THE VINE.—No. 1.

Of all the operations in grape culture, this is one of the most important, and yet it is most imperfectly performed and understood by the majority of our vintners. Many think that if they have only performed fall pruning properly, it is of very little moment how summer pruning is performed. Yet, the two operations are intimately connected; in fact, one is but a continuation of the other. Without proper and judicious summer pruning, it is impossible to prune judiciously in the fall. If you have allowed six to eight canes to grow in summer, where you need but two or three, none of them will be fit to bear a full crop; none be properly developed. By pruning somewhat longer in fall; early summer pruning, rubbing out all imperfect and weak shoots, will enable you to have only well

developed, strong shoots and bunches, and take away all the weak, imperfect ones. We therefore prune longer in fall than the majority of our vintners, which gives a double advantage; should the frost of winter have injured or killed any of the first buds, we still have enough left; and should this not be the case, we will have our choice to rule off all imperfect shoots; to reduce the number of bunches at the first pinching, and thus retain only strong canes for next year's fruiting, and have only large, well developed bunches.

But to secure these advantages we have certain rules, which we follow strictly, and which we will try and make as plain to our readers, in a series of articles, as we possibly can. We are glad to see that the attention of the grape growers of the country is

thoroughly aroused to the importance of this subject, and that the old practice of cutting and slashing the young growth in July and August is generally discountenanced. It has murdered more promising vineyards than any other practice. But people are apt to run into extremes, and many are now advocating the "let alone" doctrine. We think both are wrong, and that the true course to steer in is the middle. We shall be happy to ventilate this subject thoroughly, and communications on this subject from our grape growers are earnestly solicited. We do not claim to be infallible, nor an authority, but will try and give our rules, and the reasons for them, hoping that others will do the same.

1. Perform the operation *early*. Do it as soon as the young shoots are six inches long. At this time you can overlook your vine much easier. Every young shoot is soft and pliable. You do not rob the vine of a quantity of foliage it cannot spare (as the leaves are the lungs of the plant and the elevators of the sap). You can do three times the work that you can perform a week later, when the shoots have become hardened, and intertwined by their tendrils; and you can, at the same time, destroy the small white or blue caterpillars, which are busy at this time making their webs in the tops of the shoots, and destroying the embryo bunches and leaves. Remember that the *knife* should have nothing to do with summer pruning. Your thumb and finger should perform all the work, and they can do it easily, if it is done early enough.

2. Perform it *thoroughly* and *systematically*. Commence by picking

out the shoots you intend to leave for bearing wood for next year. These are left unchecked; but do not leave more than you really need. If you do, you squander the strength of the vine. Remember that each part of the vine should be thoroughly ventilated, and if you crowd it too much, none of the canes will ripen their wood as thoroughly, nor be as vigorous, as when each has room, air and light.

When you have selected these, commence at the bottom of the vine, rubbing off all superfluous shoots, and all which appear weak or imperfect. Then go over each arm or part of the vine, pinching every fruit-bearing branch above the last bunch of grapes, or, if this should look weak or imperfect, remove it, and pinch back to the first perfectly developed bunch. Should the bud have pushed out two or three shoots, which is very frequent with some varieties, it will generally be advisable to leave only the strongest, and remove the balance. Do not think that you can do part of it a little later, but be unsparing in taking away *all* you intend to take this time. You will not find it so easy the second time, and by leaving anything you intend to take off some other time, you are squandering the strength of your vine. Destroy all the caterpillars, and all the insects you find feeding on the vines, the steel blue beetle, who will eat into the buds; but protect the lady-bug, mantis, and all the friends of the vine.

In our next issue we intend to describe the second and third operations of summer pruning, and hope, by that time, to have received communications from our friends upon this important subject.

NATIONAL WINE-GROWERS' ASSOCIATION—THE CONSTITUTION, OFFICERS, ETC.

For some time past it has been contemplated by the leading wine-growers of the country to form a national society, similar to the American Pomological Society. It was expected that this would have been done at the last meeting in Philadelphia, but the time—the wine-making season—was found unpropitious to get the wine-growers together. Correspondence has been going on, and a meeting was held in this city last week, when an association was organized and a constitution and by-laws adopted, which we give below. There is a decided impetus given to grape and wine-growing throughout the country, and much good is expected of this association.

We give below the names of the officers elected for the ensuing year, among whom will be recognized the names of some of the leading wine-growers of the country :

President—E. A. Thompson, of Ohio.

Vice-Presidents—William Griffith, Pennsylvania ; G. F. Underhill, New York ; J. Sackstetter, Kentucky ; Geo. Husmann, Missouri ; Theo. Engelman, Illinois ; G. W. Payne, Tennessee ; A. N. Young, California ; Col. J. H. Waring, Ohio.

Secretary and Treasurer—William Stoms, Ohio.

The following resolution was offered by Mr. Thompson, and unanimously adopted :

Resolved, That in THE GRAPE CULTURIST, so ably edited by our brother and co-laborer in the vineyard, George Husmann, Esq., of Missouri, we recognize the friend and assistant of the vine-

dresser and wine-maker, and cordially recommend it to all grape and wine-growers.

CONSTITUTION.

Article 1. This Association shall be called the American Wine-Growers' Association.

Art. 2. The object of the Association shall be the development and encouragement of grape and wine-culture throughout the United States.

Art. 3. The officers of the Association shall consist of a President, one Vice-President in each of the wine-growing States, a Secretary and Treasurer, who may hold both offices. The President shall be a wine-grower.

Art. 4. The Association shall have power to alter or amend this Constitution, to make by-laws, to regulate the time of meeting, and generally to do such things as may be necessary for the well-being of the Association.

BY-LAWS.

1. The first meeting of this Association shall be held at a time and place to be designated by the President, and thereafter annually, the time and place to be designated by the Association.

2. It shall be the duty of the President to appoint an *ad interim* committee in each wine-growing district, and it shall be the duty of said committee to visit the vineyards in the vicinity during the growing season, and report upon the condition of the same at the next meeting of the Association.

3. All members of this Association shall be proposed by some member, and

elected by ballot—one black ball shall be sufficient to exclude.

4. The fee for membership shall be three dollars per annum, which shall be paid to the Treasurer, and disbursed under the direction of the Association.

[We clip the above from the columns of the Cincinnati *Gazette* of the 24th of February last. It is the first intimation we have had that such an organization was contemplated, and, although we can readily see that occasional meetings of the grape-growers of the whole country and an exchange of their views, and exhibition of their products would be beneficial, the present movement looks rather too much like a revival of the so-called "American Wine-Growers' Association of Ohio"—a very comprehensive title, although but few, outside of Cincinnati, knew it existed. The notice does not say whether the meeting was well attended, nor by whom. On the list of the officers we see three names from that neighborhood, and but eight of the States are represented by Vice-Presidents elected.

Such a society, to do good, must be established upon, and governed by, the broadest principles, and by the most even-handed justice to all; and can

only be of use to a few of the principal grape-growers, who have sufficient time and means to attend its meetings. We do not expect as much benefit from them as from State, and even county associations, where each one can attend, exchange his ideas and experiences with those in about the same latitude, and thus bring the experience of others directly to bear on his own case. New York experience is of little use to us here in Missouri, and *vice versa*; and although we are far from underrating the benefits which might arise from a general association, for the purpose of more effectually opening the market for our produce, comparing of notes, method of culture, etc., we think that smaller societies, confining themselves to a narrower circle, will accomplish more practical good. We have a sad experience of their operations on too large a scale, and under too expansive a title, in the Mississippi Valley G. G. Association, which we firmly believe would have done more good, had it confined itself to our State, as first contemplated.

We do not wish to discourage the project, however, but await further developments, and shall keep our readers posted on the subject.—ED.]

PRUNING, TRAINING, ETC.

WASHINGTON, ARK., Feb. 6th, 1870.

DEAR SIR: I have been truly and sincerely gratified to see the first number of the second volume of *THE GRAPE CULTURIST*. I feared that the experiment had not been financially a success, and as no one can be required to sacrifice his own fortune *pro bono publico*, I would not have been surprised,

whilst I would not the less have appreciated your devotion to the noble cause of grape and wine-culture, had the publication ceased. I trust the grape-growers will rally to its support, and omit no opportunity of increasing its circulation. It is hard for any journal devoted to a specialty to maintain itself, and I therefore admire the

spirit and determination with which THE GRAPE CULTURIST launches upon another voyage.

I have been much interested in the matters discussed during the past year. Much genuine light has been disseminated, and some old prejudices are fading away before the results of the experience of practical men. "Facts are stubborn things," and they insist upon teaching us that the European modes of training and culture are not adapted to our native varieties. I think two things already established, which were not generally understood a year ago: 1st. That the Labrusca family are not adapted to very dry situations and southern exposures. 2d. That we have generally planted too closely and pruned too severely. I think I shall never hereafter allow any vine (except some very feebly growing varieties) less than ten feet of room on a trellis. With regard to pruning, either you, or one of your correspondents, has hit the only practical advice. That is, to study and observe closely the habits of each variety and prune "*judgmentally*," so as to leave each vine with as much as it can fairly mature, considering the age of the vine and the fertility of the soil, and at the same time provide for sufficient new wood for the coming year. It is useful to understand theoretically and practically the systems of pruning and training practiced in Europe. From the Europeans we may also learn much of the botany of the vine. But they are useful only as hints, not as guides. Their practice may amuse us as amateurs; but for the more profitable results in vineyard culture, the American system of training and pruning is yet

an undeveloped science, if, indeed, it ever can be reduced to rules. Study nature, and use judgment, is all that can be said.

Are you acquainted with a grape they have near Mobile, called "Le Tardys' Black Spanish"? A friend obtained some slips last spring, which have grown with extraordinary vigor, and show very fine short jointed wood. Perhaps it is well known under some synonym. For myself, I am singularly deficient in the power of distinguishing varieties by the wood alone, where the characteristics are not very marked.

So far our winter has been remarkably mild. There has not been half a dozen freezing days, and the thermometer has not gone below about 25 deg. Fahrenheit. There are already indications of spring. Our vines promise gloriously. The frost cut off a portion of the crop last spring, and they made more than usual of fresh, sound wood, which is entirely clear of mildew. Missouri has a proud position in the United States for grape-culture. She deserves it. But when our government becomes settled, she must look to her laurels.

Respectfully, JNO. R. EAKIN.

[Thanks for your kind wishes and appreciation of our efforts. We shall try to deserve them, and hope if such kindly and enthusiastic spirits as yours will continue to assist us, that THE GRAPE CULTURIST will continue to "shed light" upon some of the most important questions. We do not know the grape you name, at least by that appellation. Can you advise us where to obtain it? We like to try all and every thing in the grape line.—ED.]

Wine and Fruit Reporter.

TO OUR READERS.

The Committee of Ways and Means has proposed to Congress a specific duty of 50 cents per gallon on all kinds of imported wines,—a rate, which would increase by about 100 per cent. the present duty on the bulk of the imported article.

We have been requested by some of the leading houses to prepare the following memorial on the subject, for presentation to Congress.

All of our readers who wish to sign it, will find the original at the office of the *Wine and Fruit Reporter*, 45 Beaver street.

Our out-of-town readers will be welcome by sending a collection of signatures from their respective places to P. O. B. 6,014 New York City.

The Memorial of the Undersigned, dealers in wines and liquors, at the city and port of New York, To the House of Representatives of the United States of America, respectfully represents :

That your memorialists ask leave most earnestly to remonstrate against the adoption of the proposal made by your Committee of Ways and Means, to increase from twenty-six to fifty cents per gallon, the duty upon the importation of low priced wines.

Hailing with lively satisfaction the prospect of relief held out to the trade in the contemplated reduction of the duty on brandies, they find themselves constrained by a sense of duty to submit to your honorable Body the consideration that the great advantages to be anticipated from

this measure would be more than counterbalanced by the results which cannot fail to ensue upon the proposed enhancement of imposts with which it is coupled. The consumption of imported brandies, which are used chiefly for medicinal purposes, is necessarily limited; while cheap wines form a principal element in the alimentation of every cultivated nation.

The increase proposed would not only be destructive to our trade, but would press severely upon the millions of our people, the great majority of whom would be driven to forego the use of an invaluable tonic, which would be converted into an article of luxury, like the high grades of wines which are subject to no higher duty.

We beg to consider the fact, ascertained from the official statements of the custom authorities, that the quantity of wines, which hitherto paid the lowest rate of duty, about twenty-six cents per gallon, is equal to ninety-four per cent. of all the wine imported, and we think, imposing such an enormous duty just on an article that is destined to be a beverage for the mass, to be an act of great injustice committed against the people.

The American people are in want of a drink. A nation has transplanted itself, but not its vines, from one hemisphere to another. We live in a dry climate, and under moral conditions exciting to body, brain, and nerve; and there is no other liquid to satisfy our just demand

than that noblest gift of nature, the wine; and above all, those growths which, on account of their low cost, are accessible to the million.

The teachings of science, the results of chemical investigation, the doctrines of men of learning respecting the sanitary influence of fermented grape juice on the human constitution, are wonderfully confirmed by history. Where is the country in which wine, introduced as a general beverage, has not contributed to the refinement and elevation of the national character? It has proved the best safeguard against drunkenness and crime. There are no drunkards in countries where wine can be bought at a poor man's price.

It is a mistake to believe that the interests of our own grape culture are unfavorably affected by a low duty on imported wines. Our native production of wines is far behind the consumption, and the right application of the wines of Europe in rationally blending them with those of America, will do more than anything else to open the market to the latter, and make it remunerative to the growers. In support of this position we refer to the well settled principles of oenology, and to the testimony of all experts in the country.

Wherefore your memorialists respectfully pray that the duties now imposed upon the importation of wine may not be increased as proposed, or otherwise.

[When we read the above in the columns of the *Wine and Fruit Reporter*, we could not help thinking of the passage in Goethe's *Faust* :—

“Were not this thought so curiously cunning,
One would be tempted to call it very stupid.”

We can well believe that the *importers* and *dealers* in foreign wines and brandies, would find it to their interest to reduce even the present tariff on them; but when they would try to make the grape growers of this country believe that *they* would be benefited by such a measure, we think they have counted somewhat too much on their credulity. We do not think they can get many to believe that they ought to favor the importation of foreign wines, to help them to make their own wines palatable and saleable. Only think, ye grape growers of Ohio, Illinois, and Missouri, what a profitable business it would be to import the cheap Rhenish and French wines, mix and blend them with your Catawbas, Concords, and Clintons, and then sell them again to those same gentlemen who present this memorial.

Friend Schmidt may have acted in the interest of *his patrons*, the *importers* and *dealers*, when preparing such a memorial, and he should have paused there; but when he appeals to the grape growers of this country to assist its passage, he certainly adds “insult to injury;” for it *is* an insult to the character of American wines, as well as to the good sense of its producers, when he asserts that they can only be made palatable and saleable by blending them with the lowest brands of imported wines. American wines have learned to stand upon their own merits; they are no longer the incipient and imperfect products of ten years ago; and if we would try to mix and blend them

with the cheap imported clarets and medocs, as well as with the lower grades of German and Hungarian wines, we would *injure* the reputation of our products instead of raising it; for our common Concords and Catawbas are better now, and much superior in quality, to nine-tenths of what is sold as cheap imported wines. We are well aware that there are firms in New York who manufacture immense quantities of artificial wines, and they may need the help of some *wine*, to give their products character; but *American wines*, made from *native grapes*, can stand on their own merits, and need no foreign mixture to give them character or open a market to them. We have got beyond first experiments; our varieties of grapes, suitable for wine making, count by the dozens; and by judiciously mixing and blending *them*, we can make better wine than the average of the imported. The time is not distant when the American wines will be *exported*, and when they will make a name for themselves, in spite of any duty which may be imposed upon them there.

We look upon this circular as the "doleful wail" of the importers, who are becoming alarmed at the vast dimensions American grape culture is assuming. They begin to feel that the young giant can no

longer be repressed or held under; that our wines are making a competition with their importations, which is becoming more formidable every day. We do not ask an increased duty, because we think we can compete, in quality and price, with their cheaper wines, even as the duty now is. But we think it is time that Government officials look a little sharper at the *quality* of the goods they impose duty on. We are aware that "ninety four per cent. of the wines imported are *classed* with the *lowest grades*, and that hundreds of thousands of gallons are imported annually of the *finer* wines, which, according to the present law, shou'd pay a much higher duty, smuggled in under inferior brands. Let the officers do their duty; let them tax the wines according to their quality, and we will be content with the present tariff. But we tell the importers, once for all, that they are mistaken if they think they can further their interests by trying to induce the *Grape growers* of the country to join them in a memorial, alike insulting to common sense as well as to the quality of American wines. We do not need *their* guardianship; we are capable of taking care of our own business; and they may rest assured that they will not get much help from us.—ED.]

WE republish, in this month's issue, two articles from the first volume, as they embody about all we have to say on those subjects, and although all of our old readers have seen them, yet

we have gained as many, if not more, new subscribers, to whom we think they will be of use. This must serve as our apology for the repetition.

EDITOR.

CLASSIFYING AND JUDGING WINES.

The reports of Committees on Wine, appointed at the meetings of the Horticultural and Winegrowers Associations, have failed in many instances to give satisfaction to the exhibitors. This will always be the case to some extent, as long as tastes differ, and as long as we possess the happy weakness to overrate ourselves and our own. Yet something might be done to secure to these reports more justice, and in consequence more favor and more weight, and I will make some suggestions in that respect.

In the first place, in appointing a committee for the purpose of classifying and judging wines, care should be taken to select members who use wine, as a drink about as regularly as tea or coffee are used as such. Such persons generally have no taste for distilled liquors, but abstain from them entirely, while *vice versa*, persons who like a dram of brandy or of old Bourbon, will never be good judges of wine which they invariably will find sour and weak, destitute of body. Poorly qualified to be judges of wine are also persons who like sweet preserves or other sweetmeats, or who have partaken of such or the like, or of cordials, only a few hours previous to acting as judges. Like improper is it to eat rich cheese or other piquant dishes before serving on the committee, or during the trial of wines; a piece of stale bread, a cracker or a boiled potato may be used with advantage to clear the palate and restore a pure taste; also

a spongecake, when judging superior qualities of wine. Whether smoking is admissible or not I am not able to say, because I do not use tobacco in any shape; but the atmosphere in the room in which the trial is to take place ought to be pure and fresh, not impregnated with tobacco smoke or any other smell, as that would interfere with the bouquet of the wine.

The wines before they are submitted to the committee are classified according to color, as: I, red wines; II, white wines, and III, wines which according to color cannot be classed with either of the two classes, (Shiller wines) and in each class the wines are arranged according to the variety of grape from which they are made, and again according to age. This is essential; old and new wines ought not to be drunk interchangeably; the unfermented sugar in the latter would interfere with the finer qualities of the former and make it appear sour, while the oily smoothness of the old wine would make the young wine taste rough and coarse. To each class of wines a separate committee ought to be appointed.

The adoption of a scale from 1 to 100, by which to judge and classify wines, and the latter number as the standard of excellence is very good, but by following it the committee gives only the final conclusion at which it arrives and leaves us in the dark as to the premises upon which the conclusion has been formed; it is a judgment without an opinion of the Court, referring to the points of law

and evidence upon which it is based. This defect might easily be cured. Wine is a compound, and the elements which combine to establish its quality are well understood and defined; none ought to escape the attention of the committee, but each one of them to receive its proper share of such attention in the order in which it presents itself. The order will be about as follows: The bottle is uncorked; if it is old wine, the air in the room will be perfumed at once and eagerly will the nostrils inhale the sweet scent. Here is

1. **Bouquet.** It is a characteristic of old ripe wines; in young wines it is seldom if ever developed, nor in inferior wines either.

Next the wine is poured into the goblets; the attention will be directed to its

2. **Color and clearness.** Wine which is not perfectly clear and transparent ought not to appear either in the market nor in the committee room; but it is customary with us to exhibit wine when only a few months old; it may be perfectly clear when taken out of the casks in the cool cellar, but after it has been exposed for a few hours to the warm atmosphere of the committee room, fermentation will set in and the fluid will become more or less turbid. Fermentation affects not only the clearness but also the flavor and the color of the wine.

The goblet is raised, first towards the light or the sun to reassure of the unclouded transparency of the liquid; then to the nose, more fully and definitely to establish the bouquet; then a sip or two are taken, a hearty draught follows with an approving nod, and—

3. **Flavor and aroma** are established. If any doubts remain, the operation may be repeated once or oftener *ad libitum*. Alcohol (body) acids and sugar condition the flavor and aroma, and their harmonious combination, together with bouquet, color and clearness, establish the quality of the wine, and the proper place in the scale can now be assigned to it accordingly.

All this ought to appear in the report, and it would be easy enough, if the committees were furnished with appropriate blanks, for every member to note down his opinion on each of the several elements of wine, and finally his judgment.

Another requisite is, that the committee do not act in haste, but take time to consider; an evening session, say from 9 to 1 o'clock, would be advisable! A very good time to taste wine is also in the afternoon from 5 o'clock to about 11 o'clock p. m., conditioned always, that it is not a bottle or two that are to be tried, but a dozen or more. If the time so occupied is divided in about two equal halves by the introduction of a little lunch of bread and butter, a slice of cold meat, ham and dried tongue, oysters and the like, it will not hurt it, at least not be considered a fatal defect of the judgment, at which the committee may arrive.

X.

[We have but little to add to these suggestions, which we think timely and judicious. It is certainly not enough if the committee decides which wine is *best*, but the public ought to know why they found it so, and its prominent qualities, which made it superior to other wines exhibited, should be mentioned.

In one thing, however, we beg to differ with our correspondent; it is when he says "alcohol, acid and sugar condition the aroma and flavor of the wine." We think they have but little to do with it. A wine can be very aromatic, yet very weak in body or alcohol. Aroma, as we understand the term, is derived from the fruit

itself, is is the peculiar odor by which we distinguish Catawba from Concord, and both from Norton's Virginia, etc. It belongs to the variety of grapes of' which the wine was made, and alcohol and acids have little to do with its development, although they develop *bouquet*, as we understand the term.—Ed.]

THE WINE PRODUCT OF CALIFORNIA.

The official report of the year 1868 gives the following interesting facts :

The whole amount made
was.....2,587,764 gals.

Or 700,000 gallons more than in 1867. This is divided over those counties which cultivate the grape most extensively, as follows :

Los Angelos	1,111,200 gals.
Sonoma	348,136 "
El Dorado	168,638 "
Amador	129,993 "
Napa	103,376 "
San Bernardino.....	74,590 "
Contra Costa.....	61,370 "
Calaveras.....	55,132 "
Placer.....	51,300 "
Tuolumne.....	50,897 "
Santa Clara.....	47,459 "
Butte.....	30,828 "

It is remarkable that six of the above counties are in the Sierra Nevada district, where mining was followed exclusively only a few years ago. There are already over 6,000,000 vines cultivated, and should grape culture progress at the

same rate in future, this will soon be the prominent grape district of California. Los Angelos has fewer vines than Sonoma, yet it produces three times as much wine, which, however, explains itself by the greater quantity of grapes taken to market from those districts which are easily accessible, as they obtain a much higher price for the grapes than if they were made into wine. San Bernardino, which is least accessible, furnishes the comparatively greatest quantity of wine; Sacramento, Santa Clara and Solano furnish less than a gallon per 20 vines, Napa 1 gallon to each 15 vines, besides 46,000 gallons of brandy, which requires five times as many pounds of grapes as the same quantity of wine; Los Angelos produced 2 gallons of wine to every 5 vines. The principal grape used for wine is the Mission Grape, although it is below the Zinfandel, Black Malvasier, Riess'ing, Golden Chasselas, Muscatel, and several other varieties in quality, but the superior quality of these varieties was only discovered when the greater part of the vineyards were already planted and bearing.

GRAPE GROWING IN PHELPS COUNTY, MO.

NEAR ROLLA, Phelps Co., Mo., Feb. 17, 1870.

GEORGE HUSMANN, Esq. — *Editor Grape Culturist.*—*Dear Sir:* Wishing to draw the attention of the grape growing public to our county, I send you a few notes, of which you may publish such as you think fit for publication. Ours is a new county, but fast settling up with emigrants from the Eastern States and Germany, and although four years ago there was hardly a grape-vine planted, there are now about 25 acres growing, and about 12,000 more grape-vines will be set out this spring. The varieties mostly planted are Concord, Catawba and Norton's Virginia. Last year the first crop was gathered by Mr. Neumann and Mr. Stahr. Concord was more than an average crop, Catawba, only about half, it having suffered badly with the rot. No rot in Concord or Norton's Virginia. Mr. Neumann's must of Concord weighed 79 and 84 on Oechsle's scales, the latter being gathered a few days later than the first. Our soil on the hills is mostly decomposed limestone and contains a great deal of iron, iron ore being found on almost every hill. We set out a vineyard last spring—1,100 Concord and 100 Norton's Virginia—receiving the plants from Mr. Isidor Bush. We only lost nine Concord, but our Norton's did badly; we lost a great deal more than the average. Our Concords made canes from three to six feet in length, some three-fourths of an inch in diameter. Do you think it would be safe to let these fruit next year, without hurting the vines? In subsoiling our vineyard we plowed up in one place iron ore, and the grape-vines showed in

this place much better than anywhere else. Good grape land can be bought in our county at from \$2.50 to 15.00 per acre. Timber is plenty. The land lies rolling; we are about 700 feet higher than St. Louis, and the climate is very healthy. We have several wild grape-vines growing on our land, the foliage of which resembles that of the Delaware, but bunch and berry is like Norton's Virginia, only the berry is much sweeter. It ripened last year from July 25th to August 1st. We could make no test of the must, as the birds stole nearly all the grapes, and we only got a few berries. It seemed to be very productive. If you think it worth trying, we will send you one or two vines by mail.

In conclusion, I wish you better success with the GRAPE CULTURIST than you had last year. I think it as indispensable to every grape grower as a plow, for one single item may save the subscriber a hundredfold the amount of subscription. We had ordered last year 1,000 2-year old plants at \$60 per 1,000, saw your note on choosing plants for setting out a vineyard, revoked our order, and took best 1-year old plants instead, thus saving \$20 cash. You may count us as subscribers for life.

Yours respectfully,

CONRAD E. SOEST.

[Thanks for your kind wishes. We are glad to hear that grape culture is progressing in your county. We would much like to try the wild grape you speak of. If you will send us a few plants, we will gladly exchange with anything you may desire from our collection.—ED.]

CURIOSITIES AND GLEANINGS OF GRAPE LITERATURE.

[Written for the Ohio Farmer.]

ADVERTISEMENT EXTRAORDINARY! —
4,780,723,425 GRAPE VINES!

The above small number of extraordinary vines are nearly ready for sale.

They embrace 500,000 distinct varieties. All these have been raised from crossed eyes, in a manner peculiarly my own, as suggested by my long experience. No vines in the world are equal to them, since no man has so long been in the business as myself. What good variety is there or what well grown vine, in all the country, that has not been sent out and saved from everlasting neglect by my skill and the admirable management of THE EGO MINI establishment? Clearly none at all.

Small, cheap, insignificant concerns, got up in imitation of mine, are all miserable failures.

I am free to say all my vines are started in pots. I first use small ones, holding two hogsheads filled with sand from the Sahara Desert; it being ascertained by microscopical examination, that each particular grain is rightly formed, and by chemical analyses that the constituents of that sand alone are adapted to my purpose. I then transplant to pots four times as large filled with the bone-dust from the Catacombs of Egypt. After thus transplanting my vines forty times, root pruning them each time, and each operation giving them four times their former room, I plant them in the open ground where they are finished off. When ready for market, the roots are usually 420 feet long. I have, at great expense, procured the services of 1,000 men from

Brobdignay, who have over 500 years' experience in grape propagation. It is with their aid, added to my skill and experience, that THE EGO MINI establishment is able to produce such astonishing plants. And here I wish it distinctly understood, that I do not conduct business to make money—that is *secondary*. Good vines and vines for the million are what I am aiming for. All my costly advertisements are simply philanthropic efforts. I will probably never get my money back; but still I shall go on doing good!

Besides the standard varieties, all of which would never have been heard of but for me, I am happy to offer several new varieties, the first of which is my seedling the Irsa—vine extra hardy—has been fruited successfully on the north side of Greenland—exceedingly vigorous, making 640 feet of cane the first year—very prolific, bearing 3,000 pounds of fruit per vine the second year—never drops its leaf—never mildews, and is very easily grown from cross-eyed cuttings. Bunch, very large, round, long shouldered, loose and very compact. Berries oblong, ovate, globular, round, reddish, blue, black, with a delicate touch of invisible green. Flavor, delicious, very sweet, slightly tart, sub-acid, agreeable. Must yields 220 per cent. of sugar.

I propose to sell to individuals collectively or to clubs of one or more, at the following remarkably low rates:

Ipsa, 1 year old, forty times transplanted, fifty times root-pruned, ready to bear the first year, \$40.10 each, \$5,000 per 100; 2d-class, \$30.50 each, \$4,000

per 100. For description of my other seedlings and prices, see my large Illustrated Catalogue of 3 pages, \$5 per copy. For account of my new Hybrid, or cross between the grape Noah principally cultivated, the grape of Eschol, and the old Falernian, see my large work of three pages and a half, \$20 per copy. I would here give notice that I have but two regular traveling agents—Mr. GULLIVER on land, and Capt. SINBAD on the sea. Both being gentlemen of widely known veracity, my customers may believe all they say.

Address *Me Myself,*

Ego Mihi, near Brobdignag.

[In looking over an old-time scrap book, we found the above, which we clipped from *The Ohio Farmer* a num-

ber of years ago, and as we have had many a hearty laugh over it, and think that it is "good to laugh" sometimes, we give it for the benefit of our readers, and hope they will enjoy it as much as we did.

It is a graphic and cutting satire on some of the grape catalogues published at that time, and the bombastic laudations of their vines, and varieties. We are happy to say that this nuisance is disappearing more and more, and that these make-believe benefactors of the public have been shamed out of this style of writing. Yet we meet with it sometimes even now, and it may be useful to hold up a mirror like the above now and then, in which these gentry can behold themselves.—F.D.]

D'HEUREUSE AIR TREATMENT.

(Continued.)

THEORY OF FERMENTATION.

A brief allusion to the principles of fermentation may be in place. Alcoholic fermentation is the result of the presence of certain micoderms, that require air for vigorous healthy action and propagation, while they suffer from want of atmospheric oxygen. Ozone is formed by rapid passage of air through (aqueous) fluid, and invigorates the alcoholic, acts destructively on other but injurious micoderms that cause disease, putrefaction and acidification; but both kinds can only vegetate where they find *gluten* to live. Periodical currents of air through a fermenting fluid accelerate, insure and perfect the fermentation by invigorating the alcoholic micoderms, and

the excess of gluten is at the same time gradually removed by oxidation, so that none remains to support the micoderms that necessarily perish when their functions—conversion of sugar into alcohol—is accomplished. Unless invigorated, fermentation proceeds very slowly toward the end, as when the atmospheric oxygen is exhausted, the alcohol formed seems to stupify the micoderms; a large proportion of alcohol, or presence of alkaloids, (hops and glycerine for instance) prevents or retards fermentation.

Ground taste in wine is due to the gluten it contains and improper treatment which brings out the taste. Air-treatment removes with the gluten all tendency to ground taste.

HOW AIR-TREATMENT IS APPLIED TO FLUIDS.

To impregnate a fluid with a gas, we admit the gas below, that it may rise upwards through the fluid. Accordingly the air, to act most effectually, is admitted into the fluid in a divided state by perforated pipes or mouth pieces, sunk near the bottom of the vessel, impelled by an air-force pump. Air-treatment of a hot fluid for purification from albumen requires a vigorous and continuous current of air frequently for hours to coagulate all albuminous parts; for fermentation however, periodical gentle currents are sufficient.

TO WINE ESPECIALLY.

A vigorous fermentation has been found the most satisfactory for must as well as other mash, and a sufficiently high temperature (75° to 85° F.) is essential. Fluctuation of temperature should be avoided as always detrimental. When the must is warmed (in a gathering tank) to about 65° to 70° F., the tanks or casks filled, the temperature steadily maintained, air is impelled vigorously for some ten minutes, and unless sugar is added a foaming up by a rising scum, will soon take place. After this subsides (from six to ten hours) air is gently impelled two or three times each day for about five minutes at a time, till the fermentation is finished, which is accomplished at the stated temperature in from five to fourteen days without fail. The air pipes (of block tin) are introduced into the casks through the bung-hole, in tanks from above, and, where pulp is worked for red wine, should be stationary for the

operation. The tendency to clarify appears at once when the carbonic acid gas ceases to form. A few days later the still somewhat turbid wine may be drawn off to settle in casks, bunged up, and a few weeks later will be found clear, of free ripe taste, subject to no after fermentation or other wine disease, free of ground taste, and fit to be shipped to any part of the world without more risk than old well stored wines. Scrupulous cleanliness, sweet vessels, etc., are, of coarse, always essential.

With proper care and judgment, all wines can be quickly finished by air-treatment, that were previously but imperfectly fermented in the usual mode, even diseased wines (if free from acetic acidification) restored. But no general directions can in these cases guarantee success to careless or inexperienced persons. It should, however, be borne in mind, that in all the above cases, the object is the removal of the excess of gluten by a quickly started and lively (though brief) fermentation, for which the presence of some sound and active ferment, sufficient sugar, proper heat and air are essential. Addition of ferment may, therefore, be required, or of sugar, the determination of the proper proportions of either, the work of experience and judgment. The ferment—if sound wine yeast or another kind—should be brought into full vigorous action before it is added to the quickly-warmed wine (of 70 to 75° F.), this temperature retained unchangeable during the few days of subsequent finishing fermentation. All subsequent processes are, however, obviated by the use of air-treatment

of the new must, cider, etc., which is thus carried at once beyond the reach of the many vicissitudes to which wines fermented in the usual manner, are subject.

Wines may be classified in a general way as *sweet* and *dry* wines, or those still containing sugar, and those entirely or nearly free from it. Dry wines form the bulk of the product of European and domestic vintages, as the modes to manufacture them appeared more simple. It has been shown above how dry wines are more quickly, safely and cheaply obtained by air-treatment.

SWEET WINES,

However, are as yet obtained by partial fermentation, interruption of this process; and by addition of spirits (to 20 per cent. or more of alcohol) or glycerine, etc., stability is imparted, further fermentation and deterioration rather kept under than precluded. They are cordials rather than wines. No sweet and light alcoholic wines are in the market (except sparkling), for the simple reason that *they could not be manufactured with any degree of stability*; the remnant of the gluten prevented it. Air-treatment furnishes an easy solution to this question also, and permits the manufacture of sweet wines of any desired alcoholic strength and most perfect stability, because free from gluten. Americans are fond of sweet wines and should have them.

The must, fresh from the grape (or other fruit), heated to above 140 deg. F. is vigorously air-treated for a couple of hours (or less), till the albumen is coagulated, which is removed by bag

filtering, still hot. After cooling to 70 deg. F. it is subjected to air-fermentation with the addition of a quantity of green must, suitable to insure the desired proportions of alcohol and sweetness. Or any wine obtained by thorough air-fermentation may be sweetened with crushed sugar free of gluten to suit the taste, without danger of future disturbance.

BRANDY.

The described air-treatment for fermentation of must or piguette secures by full attenuation of all saccharine parts a higher yield, of 10 to 15 per cent. of spirits, than the usual mode, in which 2 per cent. or more of the saccharine from the 12 to 30 in pulp or juice, is left unconverted and irreclaimably lost. (The loss in grain mash thus saved is still higher, from 16 to 25 per cent.)

The azotized parts are rendered insoluble, and by clearing or straining are kept out of the still, permit the formation of none or very little fusel oil, so that a purer spirit at once results. Air-treatment in the still during distillation of any pulp produces spirits free of fusel (at least the first run), and subsequent air-treatment of any distilled spirits at a raised temperature in suitable close vessels communicates quickly the properties of age, destroys the fusel-oils. To retain the fullest natural wine flavor in brandies, redistillation for refining should be avoided as much as possible, and air-treatment provides the best means to effect at once cheaply what many years of storing is generally made to accomplish with enormous expenditure.

[*To be continued.*]

German Text by Gruner. Translated by J. A. Schmidt.

NOAH'S LEGACY.

When Noah felt approach his end
He said: "I'll make my testament."
He counted over all his stocks,
His cattle, donkeys, goats and bucks;
The sheep, camels, and all the rest
With which so richly he was blessed

This done he said, "I wish to see
At once my friend the Notary."
To him, he spoke, "You shall divide
My property. Now do it right:
Let all my children have their share,
And take yourself what's just and fair."

Thus they divided all. But still,
Before the lawyer signed the will,
(He was, as lawyers in average,
Fond of a pleasant beverage.)
He said: "But now, beloved sir,
Who of your *Wine* shall be the heir?"

Said Noah, "In daylight and here
We can't decide that question, dear!
Let to the cellar us descend,

And see, how there the case may stand.
Don't fear pains!" "What my duty is,"
The lawyer said, "I never miss."

A generous man old Noah was,
And freely filled the lawyer's glass.
They drew a sample every where;
They tasted here, they tasted there,
And when they had the stock gone through,
Took an inventory anew.

Back came to Noah youth and life,
He thought no more of child and wife,
"Dear friend," said he, "now put that down,
And head it with a golden crown;
Of all the wine which here you see,
The *Human Race* the heir shall be."

"No death bell! Let the goblets ring!
And jolly boys my requiem sing.
Each cask filled with the golden wine,
Shall be a monument of mine.
Write this and make, dear notary,
Eternal thus my memory.

 ANNUAL MEETING OF THE MISSISSIPPI VALLEY GRAPE
GROWERS' ASSOCIATION.

ST. LOUIS, March 12th, 1870.

The third annual meeting of this Association will be held at the office of the St. Louis Fair Grounds, southwest corner of Fourth street and Washington avenue, St. Louis, commencing on Wednesday, April 6th, at 10 o'clock, A. M., and continuing two days.

Members, and all grape growers, are urgently solicited to send in statistics for 1869. 1st The number of acres, or number of vines planted in the year, and distance apart. 2d. The number in bearing. 3d. The total number. 4th. The amount of grades sold, and average price. 5th.

The number of gallons of wine made. 6th. Extent of injury sustained by unfavorable weather, insects, birds etc.

It is desirable that these statistics be made up at once, and forwarded to the Secretary, who will furnish blanks to any one desiring it.

According to a resolution adopted last year, one session during the meeting will be devoted to the discussion of the mode of treatment of the "must," having particular regard to its condition as affected by the seasons, as well as to its normal condition generally.

A much larger quantity of wine than usual was made last year, some of it by new processes, and much of

it is thought to be of superior merit. A full exhibition of samples of various vintages, especially that of 1869, for comparison, will add much to the interest of the meeting.

The business of grape growing has increased so rapidly within the past few years, that not a little anxiety is felt on the part of those engaged in it, and others, in regard to the future prospects of the business. The collections of full statistics annually will afford the best means of forming conclusions on this subject. It is hoped, therefore, that this important item of the business of the Association will not be neglected. If the returns are sufficiently complete, they will be at once tabulated and published.

Short essays upon pertinent topics are solicited, and those unable to

attend the meeting are requested to forward such papers to the Secretary.

Samples of wine from a distance may be forwarded to the Secretary.

The Planters' House will entertain members during the meeting at a reduction of one dollar per day from their usual rates. The St. Nicholas will charge two dollars per day only. The railroads have not yet been heard from, but the usual reductions are hoped for.

JAMES E. STARR,
President.

L. D. MORSE,
Secretary, No. 104 Olive St., St. Louis.

[We hope that all our wine growers will forget former short comings of this society and unite in making it the most useful meeting yet held. It can do good, if all combine to make it useful. We hope the meeting will be largely attended.—ED.]

EDITORIAL COURTESY.

While our brethren of the press are welcome at all times to copy from our pages, if they see any thing therein they think of interest to their readers, and while we shall at all times take the same liberty with them, we cannot say that we admire the method lately followed by the *Journal of Agriculture*. They copy three original articles from our pages, sent by our correspondents, giving the *GRAPE CULTURIST* due credit therefor. But they do *not* copy our comments on those articles, and thus

intentionally or not, convey the idea that we *endorse* all our correspondents have said, while we *differ*, in our comments, from them in several points. We do not think this fair dealing. The comments are just as much a part of the article as the article itself, and we must protest against the course pursued, and hope they will in future "give the whole animal, tail and all," however little they may think of the latter appendage.—ED.

EDITOR'S LETTER BOX.

COLDWATER, Michigan.

Will you state in *CULTURIST*, quality and productiveness of Wilder as compared with Concord? J. P. PARSON.

[The Wilder has not been as fully tested for *wine* as the Concord. Wherever we have seen it fruit, it produced as heavily as the Concord, and we think it will make a better wine. Its quality for the *table* is much better, and the bunch and berry even more showy. We also think it will keep better than Concord.—Ed.]

CLARK'S NURSERIES, COVINGTON, Ga., }
March 1st. 1870. }

MR. G. HUSMANN:

Sir: I have been reading the *GRAPE CULTURIST* with great interest and delight; I consider it of great value to all, who are engaged in grape growing and wine making; the advantages of your Journal (over any other agricultural or horticultural journals published) derive from the fact, that you are able to comment on any communication sent to you for publication, based upon your own experience, whereas many publishers insert articles (having no experience in grape culture and wine making) which are sometimes instead of beneficial, quite the reverse; also, a number of collaborators make known their long and successful experience, through your columns.

In the February number *GRAPE CULTURIST* appeared an inquiry request of one of your correspondents whether cuttings obtained from vines propagated last summer are suitable for

planting? The reply is, it makes no difference, if the vines are one or more years old, if the wood is well developed and matured, it is suitable for planting.

Having some experience in grape culture, I beg leave to make a few remarks in reference to grape cuttings. When the cutting first commence pushing out its buds, it has as vigorous an appearance as buds of old vines, but as soon as two to four leaves are formed, the tips generally wither and often dry up. This little shoot remains in this feeble state for some time, though the roots are growing. During this time, which is apparently a standstill, the roots are doing their work, they are furnishing the cutting the supply of sap, which has been sent forth into the little shoot first formed. As soon as the cutting has received the requisite amount of sap, it will send it forth again into the little shoot. The tip being withered or dead, laterals or suckers are pushing out and grow sometimes several feet in length, representing a wild appearance. The foliage on the young growth resembles that on the parent vine more than the wood. The latter can not in many instances be recognized by the closest observer. Upon these grounds, I assert, there is seldom any wood well developed on young vines, and what cuttings could be obtained are generally laterals or suckers. I have learned by observation that vines raised from suckers are not as healthy as vines from bearing canes. The main objection I have

to cuttings from young vines or suckers is, viz: They will cause the fruit to ripen irregular, mature later, and by continued propagation from such vines, will finally not mature at all.

Besides my own assertion of the above facts, I will refer to an article on propagating vines in the February number, 1869, GRAPE CULTURIST.

It says: Wood from young vines are not good for propagation. The writer stated the reason; I would not say that cuttings from young vines (wood well matured) will not grow as readily as cuttings from old vines. The point in view is, whether there can be as good and reliable plants obtained from young vines and suckers as from bearing vines? Have our propagators any object in view advertising their plants for sale, when they say our plants or grape wood are from bearing vines?

We expect to propagate a good many vines this spring of different varieties. I will here give you my plan, how I expect to prepare the ground for Nortons and other hard wood cuttings. The soil is a deep, loose, sandy loam. I lay off my beds 4 feet wide, remove the soil 6 to 8 inches deep, put a good coat of stable manure and cotton seed down, put the soil back again, fertilize with bone-dust. I have the soil deep enough on the top of the manure so that the cuttings do not reach the manure; stable manure and cotton seed being beneath the plants, will create a stimulant from below. If the seasons are too dry, I have a branch convenient, which I can run between the beds. I will mulch with sawdust or spent tan;

I have both convenient. Do you think this method a good one?

Yours truly,

L. A. BURKHART.

[We think you are mistaken entirely in supposing that vines propagated from laterals ripen their fruit irregularly, or are unproductive. It is a well established fact, that many varieties, for instance the Concord, Gœthe, Herbemont and many others, produce most abundantly, and their best fruit, on laterals spurred in, finer fruit than they will ever produce on the main canes, and we know of not a single principle in vegetable physiology upon which you could base your theory, other than the mere assertion. Remember that we say, the wood must be well developed and ripened; if it is all this, we care not from what part of the vine it comes, only we do not want the large rank canes which you seem to prefer, for two reasons, they seldom make roots, and when they do, their pith is so large and the wound made in cutting them so great, that it will seldom heal over completely, and they will not make as sound and healthy plants as those grown from smaller, firmer wood. Propagators, when they advertise "Wood from bearing vines," have a twofold object. First, to assure their customers that the varieties are *true to name*, and secondly, it is an old erroneous prejudice, that strong wood will grow better, of which they take advantage, to insure more ready sales.

Your plan of planting cuttings in hot beds may be good enough, if you take care not to get the manure too near their base, and mulch well. But it is a very laborious process, and the

addition of bone-dust besides, as a fertilizer, is certainly too much of a good thing. We would not like to plant vines thus unnaturally stimulated. If they are removed to soil of common fertility, they will be like a highly fed and pampered colt, which is suddenly left to shift for itself, with what it can pick up. It will be a decided change for the worse.—ED.]

—

PEORIA, Feb. 24th, 1870.

MR. GEO. HUSMANN, *Bluffton, Mo.*:

My Dear Sir: Encouraged by your valuable answers in the GRAPE CULTURIST, I allow myself a few questions.

You recommend for Norton's Virginia, Taylor, Clinton, etc., to bear on old arms; now, do you pinch the bearing shoots of the old arm, above the second bunch of grapes, just the same as bearing shoots on arms which are renewed every year, and will those shoots then, at their base, have good strong eyes, for next year to bear; or do you let only every other shoot bear, and those which do not bear, allow to grow higher, and thereby produce better eyes, for another season to bear from.

You say the quality of Norton's Virginia wine depends to a great extent on the condition and texture of the soil. I have a few Norton's Virginia vines now six years old, 6x3 apart, growth very vigorous, the fourth year bore from 10 to 20 lbs. per vine; the fifth, or last season, I taxed them too heavy with raising layers, and so only got half as much. Now, I would like to plant about one acre of these, but would like very

much to know whether my soil and situation is any way fit to raise good Norton's Virginia wine. I will try to give you a description of my soil: Bluff land, three to four miles distant from the Illinois River, about 200 feet elevated; natural growth, oaks, hickory, sassafras, wild vines, blackberries, etc.; sloping to the south; top soil blackish, one to six inches, then grayish yellow to red; at the foot of the hills, sandstone, flagstone, limestone, etc. I send you a small sample of that taken two feet deep. How do you call it, loam, clay, muck, or what? and do you think Norton's Virginia could profitably be planted in such soil?

I have so far trenched all my soil full two feet deep not quite inverting it, but laying it mostly side-ways, filling in below with about six inches of straw. I tried this soil three feet below the surface one winter, exposed to the atmosphere, and planted corn in it, which was extra good; also one acre, dug two feet deep in fall of '63, planted Delaware vines in it last spring, and Peach Blow potatoes between the rows, a good many of these weighed two lbs. each, and yielded at the rate of 250 bus. per acre. I will second you in shallow planting, but I think deep digging of the soil preferable over all and every plowing. I have this winter, besides burying my vines, covered the whole of my vineyard with two to four inches deep of straw. Do you think this good? Please tell us some time this year how to prepare and handle must to weigh it, has it to be filtered, ought it to have a certain degree of warmth, and how is that to be found? How

must wine be treated to weigh it with Oechsle's scales, etc., etc.

I am, respectfully yours,
ED. ROELES.

[You ask a good many questions all at once, but we will try to answer them to the best of our ability.

If you do the *pinching* early enough, you will have no trouble in getting good strong eyes at the base of bearing shoots, which you can cut back to two or three buds. That is the plan we follow, but we do our pinching *early* enough, so as not to stunt the development of the shoot, and we pinch every shoot on the arm. When pruning, we spur in the strongest, and cut the weakest out entirely.

The sample of soil you sent us, we should call clay, mixed with sand, and as far as we can judge, from mere description, would call your soil *good* for Norton's Virginia. But "the proof of the pudding is in the eating." If you can make first class Norton wine there, it is better proof than all suppositions. If you send us a sample of the *wine* made on your soil, we can tell you, we trust, whether it is good or not.

We can only see a difference between deep *digging* and deep *plowing* in favor of the latter, as it pulverizes and mixes the soil more thoroughly. If you prefer the extra labor of working with the spade, why we do not pretend to censure you. "Everybody to his liking," as the old lady said when she kissed the cow. We prefer to do our work on a cheaper plan, if we can do it as well or better by it.

The straw will not hurt your vineyard, but we think you would do well

to turn it under with the plow this spring. It will then serve as manure, the only benefit we can see in it.

When we weigh must, we bring it to a temperature of about 65 deg.; it need not be filtered, but should of course have no skins or seeds of grapes suspended in it. *Wine*, to weigh it with Oechsle's scale, should be fully *wine*, which means that it should not contain unfermented sugar, and be clear. Then have it at about the same temperature as the must, 65 deg.: unscrew the small weight at the bottom of the scale, which is left on in weighing must, and the *wine scale 1—12* will indicate the degrees.

—ED.]

SANDUSKY, Feb. 7, 1870.

FRIEND HUSMANN:

My Dear Sir: Enclosed you will find two dollars, subscription to your valuable paper. Please excuse me for not writing sooner--have been so busy.

I was an officer of the Ohio Grape Growers' Association; have attended every meeting since they discarded wine, and will state to you that at every meeting of the society wine has been introduced, drank in the committee room, and in public and private; there was no such thing as keeping it out.

I was also present as an officer of the State Horticultural Society when it was merged, as they called it, into that society.

The truth of the matter is, it was a funeral, and they held the wake at friend Ohmer's, Dayton, Ohio. His beautiful mansion was kindly thrown open on this important occasion, with

well filled tables of cake and **WINE**; and the thing was a very pleasant affair after all said and done. This is the end of the Ohio Grape Growers' Association, said to have been killed by wine.

The truth of the matter is, it was killed by taking up the time of the society in discussing the temperance question, which should not have been introduced.

Yours, truly,

D. O. RICHMOND.

[We think if the Society, instead of *excluding* wine, had advocated its general introduction, in the place of ardent spirits, *as a temperance measure*, it would have been more successful, and have done more good. We do not believe in the doctrines of men who put on sanctimonious faces and profess to be better Christians than our Savior himself, who even changed water into wine to promote innocent hilarity. If they are too weak in that respect, and must make sots of themselves, even when drinking wine, why, let *them* abstain; but let them not try to hinder those who use wine as it was intended to be used—in moderation.—ED.]

—
ELIZABETH TOWN, Pa., Feb. 8th, 1870.

GEORGE HUSMANN:

Dear Sir: Enclosed find \$2 for one year's subscription to **GRAPE CULTURIST** for 1870. January No. received.

I am glad to hear that the **GRAPE CULTURIST** is to be continued, and hope it may receive the encouragement it so richly deserves. I am much interested in E. F. Underhill's article in January number on "Treatment of the American Grape-vine,"

and hope he may give us a better method of training than any we yet have.

The grape here was only an average crop this season. Concord very fine but Clinton was attacked by a gall fly, which caused the leaves to fall before the grapes were ripe, thereby injuring the quality of the crop. Young vines of Martha, Telegraph, Ives', and several of Rogers' numbers which bore their first crop gave promise of being well suited to our soil and climate.

Grape growing here is but in its swaddling clothes, yet I think Lancaster county possesses a soil and climate as well suited to the growth of this noble fruit as any to be found east of the Alleghany mountains.

Yours truly,

ADDISON EBY.

[We are sorry to hear that you are troubled with the same enemy to the Clinton vine, which threatens to make it almost worthless here. We had supposed that Clinton succeeded well in most sections of your State.

We like the spirit which makes every man believe he has a good if not the best locality. It gives encouragement to his efforts, lightens his labor, and will bring success even against obstacles where despondency would never have achieved anything. Let every one believe that nature has done a great deal for him, and he will be all the more willing to do his share also.—EDITOR.]

—
Mr. JOHN REICHERTER, of Grasshopper Falls, Kansas, an old correspondent and customer writes to us: that all who have paid any attention to

grapes there, have had good crops; he has grown Concord bunches, the last two years, ten inches long; that he does not know the weight of grapes exactly, but has often gathered two common pails full from single vines, and that, although his Concord vines suffered from rot last summer, he yet made a very satisfactory crop. Catawba lost its leaves, rotted and ripened unequally, but still made a tolerable crop, while his Catawba crop in 1868 was as abundant as the Concords, and of a very fine quality; therefore, he thinks he will try Catawba a little longer, and we think he is right. Where it will do as well as that it would be folly to dig it up. Delaware, Cassady and other varieties, which have lost their leaves in other localities, he reports entirely healthy, and thinks that Kansas, as a State, is peculiarly adapted to Grape culture.

[This is a synopsis of his letter, written in the german language, we are glad he can send us so good a report, and we say "success to Kansas and her industrious grape growers.—ED.]

—
KEYTESVILLE, Chariton Co., Mo., Feb. 17, '70.

GEO. HUSMANN, *St. Louis, Mo.:*

Dear Sir: Enclosed please find \$2 for the GRAPE CULTURIST. Please accept my thanks for the continuance of the journal since my time expired. I would not think of being without your valuable journal.

I have a vineyard of about four acres of Delaware, Norton, Concord, and a few vines of other varieties, all doing well. I will give you an incident of last season, which may be of some interest to you. Last spring my bearing vines were in fine condi-

tion and put out strong, healthy buds, and gave promise of a good crop. About the last of May there came a heavy hail storm and greatly injured the buds and young shoots. The man I had employed to cultivate and manage my vines (a German of experience) without my knowledge, immediately after the storm, stripped all the buds and young shoots from the vines. He claimed that the vines would put out new buds and make a full crop. In about fourteen days after the hail the vines put out leaves. The Delaware bloomed and made over half crop of the largest and best matured Delaware grapes I have ever seen. The foliage all remained perfectly fresh and green until frost. The Concords only made a few bunches of grapes, Norton more. I have no doubt but what grape growing can be made a success here.

Yours truly,

F. M. RELLUM.

[The circumstance you mention can be easily explained. Every bearing bud on the grape-vine is a triple one. The middle is the principal one, and generally brings the fruit-bearing shoot. If by a hail-storm, frost or otherwise, this bud is damaged, while the cane remains sound, the side buds will start new shoots, which are however widely different in fertility in different varieties. In the Delaware and some other varieties they will produce nearly as well as the first or principal bud—in the Concord not so much—while in Norton's Virginia and some other varieties they are nearly barren. We had a similar occurrence in 1864, when the hard frosts of winter killed nearly all the middle buds,

and only the side buds remained. Our Concords bore two-thirds of a crop, the Norton only about one-fourth, the Catawbas only about one-eighth. The Delaware and Cassady, two of the most fruitful vines we know, will often, if uninjured, push forth all three buds, and we have seen and ripened nine bunches from a single eye, on three shoots, on a Cassady vine. We know Chariton county to produce some famous wines, and have no doubt of the success of grape culture there.—
EDITOR.]

OLIVER'S PRAIRIE, Feb. 17, 1870

MR. EDITOR: A few days ago, in digging up the rooted layers of our grape-vines in order to transplant them into the vineyard, I found, two inches under ground, a fine bunch of Cynthiana grapes perfectly sound and good to eat.

This grape must have grown and matured beneath the soil, for I covered the layered canes in the beginning of June last, directly after blooming time.

Western grape growers are unanimous in calling the summer of 1869 the worst season for rot and mildew in grapes they ever saw. If in such a season we can raise healthy bunches in the wet soil, what a country for grapes must ours be?

Yours truly, HERMAN JÆGER.

[The above is from Newton county, Mo., and the correspondent asks: Have you seen anything like this already? We answer that we have frequently found sound bunches of grapes on layers, in fall or during winter, which had been covered in midsummer. They keep perfectly plump and fresh, and we have thought

seriously of trying it on grapes to keep over winter. Every farmer knows that apples can be kept in excellent condition by just covering them with leaves and soil to keep out frost, although they will decay rapidly when exposed to the air afterwards. Why should it not be possible to keep grapes by the same method?—ED.]

MR. HUSMANN:

As I am endeavoring to grow a few vines of the Concord and Clinton; also of the Seuppernong, a question has presented itself to my mind as to the practieability of cultivating with the *plow* near the vine. For instance, I planted the Seuppernong thirty (30) feet apart each way, and cultivated the ground in cotton last year, and expect to do so again this year.

What I wish to know is this: Will I or will I not be injuring the vines by cultivating the one in cotton and the other in vegetables, allowing a breadth of space of four feet for *vine-row*? If you will advise me some about this matter, from your *great storehouse of experience*, I shall be greatly obliged to you.

Very respectfully, J. DOZIER BASS.
PITTSBURG, Upshur County, Texas.

[We do not think you will injure the vines by planting other vegetables among them, provided always you do not get too close to the vines, so that the vegetables or other crops you grow draw the substance the vines ought to have. We frequently plant potatoes or cabbage among our vines the first season, and have not seen any ill effects from it, although we have raised remarkably fine vegetables.—ED.]

Club Rates.

By special agreement with the publishers, we are enabled to club the GRAPE CULTURIST with the following journals, at the annexed rates:

Grape Culturist and Journal of Agriculture	\$3 00
" " American Entomologist	3 00
" " Colman's Rural World	3 00
" " Horticulturist	3 50
" " Zymotechnic News (English and German)	2 25

To those sending us the names and post office address of six subscribers, we will furnish the sixth copy free.

Vol. I. will still be furnished at the reduced rate of \$1, *complete*. To those who desire it bound, we will furnish it bound in muslin, with index and title page, at \$2.25, post paid; or they can be supplied with the cover at \$1.00 each.

Cash Advertising Terms for 1870.

TWENTY CENTS PER LINE, AGATE TYPE, EACH INSERTION.

Cover Pages Twenty-Five Cents per Line.

BUSINESS CARDS, FIVE TO SIX LINES EACH, \$15 PER ANNUM.

FRUIT GROWING FOR PROFIT.

Everybody can have the benefit of thirty years' experience, in my new Descriptive Catalogue of 56 pages, for 10c. It tells what and how to plant. WM. PARRY, Cinnaminson, N. J.
mar70-tf

GREENHOUSE AND BEDDING PLANTS.

Our new Illustrated Catalogue, containing lists of Stove and Bedding Plants and Flower Seeds, Hardy Herbaceous Plants, Dahlias, Gladiolus, Lilies, and other Bulbs, is now ready, and will be mailed to all applicants. Postage prepaid. Address MICHEL BROS. & KERN,
107 North Fifth Street, St. Louis, Mo.
mar70-tf

HAVE YOU GOT MARTHA?

GRAPE VINES AND SMALL FRUITS.

[Nursery Established in 1857.]

A splendid stock of Vines and Plants are offered the coming Fall and Spring, including nearly every variety known to be of value. The popular and white Grape

MARTHA, OR (WHITE CONCORD),

In large or small quantities. Also, Arnold's new Hybrids, Eumelan, Walter, Weehawken, Christine, Hine, and all valuable numbers of Rogers' Hybrids; also, Delaware, Iona, Israella, Concord, Hartford, Ives, Norton's Virginia, etc., etc., in all about one hundred distinct varieties.

Kittatinny Blackberries and Clarke Raspberries in large quantities, Jucunda and Charles Downing Strawberries, Downing's Seedling Gooseberries, Cherry, Versailles, White Grape, and Black Naples Currants, etc., etc.

Send stamps for Illustrated Catalogue and Price Lists to

apr69-tf

GEO. W. CAMPBELL, Delaware, Ohio.

CHOICE VARIETIES OF

Grape Vines, Strawberry Plants, Raspberry, Blackberry & Gooseberry.

Also, a few Peach and Cherry Trees, the finest growths. Particular attention will be paid to small orders of plants to be sent by mail. For sale by

SAMUEL MILLER, Bluffton, Mo.

ZYMOTECHNIC NEWS.

A Monthly Journal

**For all Branches of Fermentic Arts—Manufacturing of
Wine, Beer, Spirits, Vinegar and Yeast.**

THE "ZYMOTECHNIC NEWS" will give a detailed record and discussion of all improvements which obtain publicity, both in the Old and New World. The more important ones of these improvements will be subjected to the most careful tests in the chemical laboratories and technic establishments, amply at the editor's disposal, and the results thus gained will also form part of the communications of the "ZYMOTECHNIC NEWS."

The "ZYMETECHNIC NEWS" will appear both in ENGLISH and GERMAN, and the yearly subscription for each one of the two editions is but \$1 in advance.

ONLY ONE DOLLAR A YEAR!

All Business Men standing in any practical relations to Zymotechnic Pursuits, more particularly Producers of Wine, Brewers, Distillers, Rectifiers, Wine and Liquor Dealers, Vinegar and Yeast Manufacturers, ought to subscribe for a copy of the "ZYMO TECHNIC NEWS" in order to rest assured that nothing new in the technical appliances of their pursuit will escape their notice. If but once in a while a single item of interest and value to themselves has been made available, the small expense of \$1 a year will have possibly been repaid a hundred-fold in a short time.

All letters and remittances are to be directed to the undersigned.

N. B. Correspondence conducted in English, French and German.

CHAS. H. FRINGS, Editor,

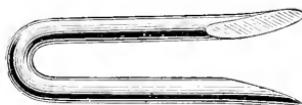
P. O. Box 2,742.

ST. LOUIS, Mo., December, 1869.

202 South Fourth Street.

jan70-t17

FENCE AND GRAPE WINE.



STAPLES, run 72 to the pound, 14@15c per lb.

S	Weights 7½ pounds to 100 feet, or 389 pounds to the mile...7½c							
9	6	100	323	7½	7½c			
10	5	100	261	7½	7½c			
11	4	100	211	7½	7½c			
12	3	100	163	7½	7½c			

A large stock on hand and for sale in quantities to suit, by

R. SELLEW & CO.,

805 N. Main Street, St. Louis.

GRAPE WOOD

FOR

GRAFTING OR PROPAGATING.

CYNTHIANA.....	\$ 5 00	per 100.....	\$35 00	per 1,000 eyes.
HERMANN.....	10 00	"	75 00	" "
MARTHA.....	3 00	"	25 00	" "
DEVEREAUX.....	2 50	"		
RULANDER.....	2 50	"	20 00	" "
LOUISIANA.....	2 50	"	20 00	" "
MAXATAWNEY.....	1 00	"	8 00	" "
TELEGRAPH.....	1 00	"	8 00	" "
CASSADY.....	75 cts.	"	6 00	" "
CREVELING.....	75	" "	6 00	" "
GOETHE.....	75	" "	6 00	" "
IONA.....	75	" "	6 00	" "
ISRAELLA.....	75	" "	6 00	" "
LINDLEY, (Rogers' 9).....	75	" "	6 00	" "
MASSASOIT, (Rogers' 3).....	75	" "	6 00	" "
MERRIMACK, (Rogers' 19).....	75	" "	6 00	" "
NORTH CAROLINA SEED- LING.....	75	" "	6 00	" "
ROGERS' HYBRIDS, Nos. 2, 8, 12.....	75	" "	6 00	" "
SALEM.....	75	" "	6 00	" "
WILDER, (Rogers' 4).....	75	" "	6 00	" "
HERBEMONT CUTTINGS, 9 to 12 in., trim'd ready for plant'g	10 00	per 1,000.		
DELAWARE	"	"	10 00	"
HARTFORD PROLIFIC	"	"	5 00	"
IVES'	"	"	5 00	"

Cuttings will be shipped by express or freight, and an additional charge of 30 cents per 1000 for boxes and packing be added. Freight to be paid by purchaser.

WE HAVE A LIMITED QUANTITY OF

WOOD FROM BEARING VINES, From our former Vineyards at Hermann, for Sale.

All who wish to try them, will be furnished at the above rates, by addressing
Small packages will be sent by mail, post paid.

GEORGE HUSMANN,

BLUFFTON, MO.

GRAPE VINES AND SMALL FRUIT,

Warranted Genuine and of Superior Quality, in Large Quantities, at Reduced Rates.

CONCORD.....	per 10,000.....	\$250.00	MARTHA, extra strong.....	per 100.....	\$ 75.00
".....	per 5,000.....	125.00	CYNTHIANA, "	per 100.....	100.00
".....	per 1,000.....	35.00	IVES, "	per 1,000.....	50.00
HARTFORD PROL.....	per 1,000.....	45.00	".....	per 100.....	6.00
".....	per 100.....	6.00	RULANDER, "	per 100.....	39.00

For prices of all other Varieties, we refer to our PRICE LIST (*gratis*), and to our new ILLUSTRATED DESCRIPTIVE CATALOGUE, containing valuable information on grapes and grape culture, which will be mailed, free of postage, to any address, on receipt of 25 cents.

A GERMAN EDITION of same, by Fr. Muench, price 25 cents (less than cost), has just been published.

Please address

jan69-tf

ISIDOR BUSH & SON, Bushberg, Jefferson Co., Mo.

GRAPE VINES!

The Bluffton Wine Company

Offer a large stock of thrifty, finely rooted GRAPE VINES of all valuable and popular varieties, together with all novelties in this line.

Large quantities of leading varieties will be furnished at a very liberal discount on list prices.

Descriptive priced Catalogues sent to any address on application to

WILLIAM WESSELHOFT, Secretary,
Bluffton, Missouri.

jan69-tf

TOBIAS WEIGOLD, COOPER,

1618 Jackson street, St. Louis, Missouri.

Offers his services to Wine Dealers, as manufacturer of all kinds of casks, fermenting vats and cellar apparatus. He guarantees satisfactory work and lowest prices. Refers to some of the principal wine dealers in the State of Missouri, for whom he has made casks and vats for a number of years, and especially to the Bluffton Wine Company, No. 22 South Main street, where casks and vats of his manufacture can be seen by those interested in the business.

feb69-tf

GRAPE WOOD! TWENTY KINDS!

Immense Stock, especially of

Concord, Ives, Delaware, Hartford, Iona, Catawba, Isabella, Clinton, Rogers' Nos. 4, 15 and 19, etc.

Cut from Bearing Vines before hard freezing, and stored in frost-proof Cellars.

Very Low for Cash. Price List Gratis.

ALSO, LEADING VARIETIES OF GRAPE ROOT IN STORE.

Can ship South safely at any time.

M. H. LEWIS, Sandusky, Ohio.

feb69-tf

THE HORTICULTURIST

AND

JOURNAL OF RURAL ART AND RURAL TASTE.

(ESTABLISHED BY A. J. DOWNING, 1846.)

Devoted to *Horticulture, Landscape Gardening, Rural Architecture, Rural Embellishments, Pomology, Floriculture, and all subjects of Rural Life, Literature, Art and Taste.*

HENRY T. WILLIAMS, Editor and Proprietor.

SUBSCRIPTION TERMS.—Regular Subscription, \$2.50 per annum. Monthly Numbers, 25 cents. N. B. *All subscriptions strictly in advance.*  To prevent loss of money through the mail, subscribers will please transmit Check, Draft, or Postal Money Order for amount. We cannot be responsible for sums sent in any other way and lost.

CLUB TERMS.

3 copies to 1 P. O. address, \$1.75 [\$2.25 each]. 10 copies to 1 P. O. address, \$17.50 [\$1.75 each].
5 " " " 10.00 [2.00 "]. 20 " 1 " 30.00 [1.50 "].

An extra copy sent free to the former of clubs of five, ten or twenty subscribers. Illustrated Prospectus free on receipt of Postage Stamp. ADVERTISING RATES—25 cents, per agate line, each insertion. Address, HENRY T. WILLIAMS, 7 Murray street, New York. P. O. Box, 2445. The *Horticultrist* for 1869 and 1870, unbound will be supplied at \$4.50. Bound volumes for 1869, \$3.00 each.

D'HEUREUSE AIR TREATMENT.

PATENTED AUG. 6th, 1867, AND AUG. 3d 1869.

For FERMENTATION and GERMINATION, and for PRESERVING, PURIFYING and IMPROVING of Organic Substances.

Exceedingly useful in Malting, Brewing, Distilling, Baking, Manufacture of Wine, Cider, Fruit Wines, Fruit Brandies, Vinegar, etc.; in Sugar Works, Oil Works, Manufacture of Extracts, Preserves; in Storehouses, Transportation of Grain, Produce, Fruit; Purification of Water, etc., etc.

 Rights for States, Counties, Districts, or Establishments, for sale. Apply to

P. O. Box 6844.

R. D'HEUREUSE, New York.

PUBLISHED AND FOR SALE

BY

CONRAD WITTER,

ST. LOUIS, MO.

MUENCH, FREDERICK, *School for American Grape Culture.* Brief but thorough guide to the laying out of vineyards, the treatment of vines and the production of wine in North America.

MUENCH, F., *Amerikanische Weinbauschule und Weinbereitungslehre, etc.*

Either one of these books will be mailed free of postage on receipt of one dollar.

HUSMANN, GEORGE, *The Cultivation of the Native Grape and Manufacture of American Wines.*

On the receipt of \$1.50 this book will be mailed to any address.

SEIMIDT, J. A., *The Diseases of Wine*, how to prevent and how to cure them, according to the doctrines of M. Pasteur.

This book will be sent, free of postage, on receipt of \$2.

C. WITTER keeps a large assortment of books treating on the Culture of Grapes and Manufacture of Wines.

Catalogues sent on application. Please address letters,

CONRAD WITTER,

122 S. E. corner Walnut and Second Sts., St. Louis.

THE GRAPE CULTURIST.

VOL. II.

MAY, 1870.

No. 5.

MAY.

WORK FOR THE MONTH.

May, with its genial sunshine, is especially the pushing and growing month, and the vintner will have enough to do, tying the young shoots of his vines destined for next year's canes, summer pruning and pinching, etc. In tying up the young canes, his object should always be to train them where they have the most room on the trellis, and as speedily as possible, to the upper wire of the trellis along which they may be led, and form a leafy canopy, shading and protecting, but not smothering, the fruit below. The best material for tying is the inner bark of the Pawpaw, slit into convenient strips. Bass wood bark is not quite strong enough, and is apt to be rubbed through by the friction of the branches; and twine is too expensive. Rye straw cut into convenient lengths, also the husks of corn, slit and soaked in water, and the leaves of the Adams Needle (*Yucca filamentosa*) are also good. Of summer pruning, we shall treat in a separate article.

As soon as weeds appear, after the first plowing and hoeing, plow and hoe again, but more shallow than the first time, and *always* in dry weather. Keep the ground well pulverized, especially in your new plantations, around the young vines. They will grow much more freely.

Examine your grape grafts, and rub

off all suckers from the stock below, as they will rob the graft of the nourishment properly belonging to it. But take care that you do not move the scion, or rub off the buds on them.

Do not be impatient if the scions do not start at once. They always start later than the stock; very often even, the principal bud having started, it drops off again, and the side bud or dormant one (of which there are two besides the principal one, on each well developed joint—each bud in fact being triple,) will start a week, or even a month later. As long as the scion is fresh and green, there is hope that it will grow, and those starting late will often make up by rapid growth for lost time. Keep them well covered with saw dust or tan, so as to shade them from the sun, and keep them moist, while the young buds can easily penetrate it.

Fill up around your layers with well pulverized soil, and as soon as they have grown fifteen to eighteen inches, pinch off the leading shoot. They will become more stocky, and make better roots.

Examine your cutting beds, and keep them clean and mellow, plowing between the rows and loosening around the cuttings with hoe and weeding fork. Should the weather threaten to become too dry,

and you can procure saw dust or spent tan for mulching, it will be of great benefit to them. If you can not procure these, mulch with well pulverized earth, drawing it up over them, but it will not do to let this bake and harden into a crust.

In vineyards planted this spring, leave no more than one shoot to grow, rubbing off all others; but on this allow all the laterals to grow, as that will make it more stocky. On vines in their second

year, if they start strong and vigorously, you can leave, on strong growing kinds, from three to four shoots, as they should have two or three bearing canes the next year, and one spur as a reserve near the ground. Look sharp after all noxious insects, especially the steel blue beetle, the different small worms which make their nests in the tips of the young shoots; but protect the lady-bug, the Mantis and its eggs. They are among the best friends you have.

SUMMER PRUNING THE VINE—No. 2.

We come now to the second stage of summer pruning, and shall try to be as explicit as possible in describing our mode. In answer to numerous inquiries, we will state that this practice was first followed here by Mr. William Poeschel, one of our most observant and best vine dressers. He perceived that some shoots, of which the ends had been eaten off by worms at a very early time, developed their bunches much more rapidly and evenly. He stated the fact to us in the summer of 1852, also showed us some rows he had pinched in this manner, and some he had treated in the old manner of summer pruning, namely, waiting until after the bloom, and then pinching or cutting the shoot two leaves beyond the last bunch. The difference was so marked and apparent in favor of the new method over the old, that we were at once convinced of its advantages, and advocated it through the press. We can well remember a very warm controversy we had about this in the columns of the *Cincinnatus*, and are happy to say that it ended in a convic-

tion of our friend Warder to the "new heresy," of which he became a warm advocate from that time on. We could state many similar cases; and the success of Mr. M'Pike at Alton, so often commented upon in public, is owing, to a great extent, to his following this method as soon as his vines commenced bearing. It is one of the discoveries the diligent observer of nature so often makes, small it itself, but important in its results, and which each of us can make every day if he will observe the habits of his plants thoughtfully, and draw conclusions from his observations.

After the first pinching, the dormant buds in the axils of the leaves on the fruit-bearing shoots will each push out a lateral shoot opposite the young bunches. Our second operation consists in pinching these laterals each back one leaf as soon as we can get hold of the shoot above the first leaf, so that we get a young and vigorous leaf additional, opposite to each bunch of grapes. These serve as elevators of the sap, and also

as an excellent protection and shade to the fruit. Remember, our aim is not to rob the plant of its foliage, but to make *two* leaves grow where there was but *one* before, and at a place where they are of more benefit to the fruit. Had we allowed the fruit-bearing shoots to grow unchecked, as some grape-growers advocate, these buds would have remained dormant; the old leaves drop off in August, and the fruit is exposed to the scorching sun. Besides, the branches intertwine so with their tendrils that it is very difficult to manage them afterwards. By our method, our rows of vines have the appearance of leafy walls, each bunch of fruit properly shaded, and yet each part of the vine is properly ventilated.

We come now to another of those accidental discoveries, which has proved of great use to us in the management of the Concord, Herbemont, Taylor, etc. In the summer of 1862, when a piece of Concord, planted in 1861, was growing rapidly, a severe hail storm cut up the young shoots, completely defoliating them, and breaking the tender and succulent shoots at a height of about two feet. The vines were grow-

ing rapidly, and the dormant buds in the axils of the leaves immediately pushed out laterals, which made very fair sized canes. In the following fall, when we commenced to prune, we found from three to five of these strong laterals on each cane, and accordingly shortened them in to from three to five and six buds each. On these laterals we raised as fine a crop of grapes as we ever saw, certainly much finer than we had ever before raised on the strong canes; and we have since learned to imitate hail storms, by pinching the leaders of young shoots when they have grown say two feet, forcing out the laterals, and growing our fruit on the latter: thus meeting with another illustration of the old proverb, "It is an ill wind which blows nobody any good."

In our next number we shall take up the third and last pinching, thus giving our system of summer pruning complete. Will not some of our friends give us their methods, and the reasons for them? We expect to differ with many, and as we think a proper course of summer pruning one of the most important questions in grape culture, would like to have it fully discussed.

IOWA WINE.

We had the pleasure of receiving a bottle of wine from W. Moerschel, Homestead, Iowa, which he says is a combination of equal parts of Delaware, Concord, and Isabella, and about which he wishes to have our opinion. As we are always ready to try such samples of wine, and give our opinion, here it is:

Color, white or light yellow; wine brilliantly clear, showing careful

handling, with a very fine flavor. Delaware predominating, not as heavy as some pure Delawares we have tested, but heavy enough for a delicate wine, and need not be ashamed to show its face anywhere among fine wines, and very creditable to the skill of the maker. Vintage of 1868. It can be truly called a very fine hock wine, but not containing as much acid as the generality of the imported Hocks.

THE CHEMISTRY OF WINE.

BY CHAS. H. FRINGS.

(Continued.)

Except alcohol, acids, glycerine, and flavor, there is nothing contained in the must which may be classified among the wine-making substances. We can regulate the alcohol and acids. Glycerine is formed from the sugar, thus only the flavors remain, of which the inexperienced believe that they are contained in lesser proportions in a must increased by a solution of sugar, than in a so-called *natural* must.

We have already, in a former part of this article, defined the difference between "general flavors" and *bouquet*. The first are formed by cennanth ether, which is contained in the must in such quantities, that a barrel of it contains enough to flavor twenty barrels of wine to a sufficient degree. Bouquet is also formed from ether, which can only then be developed to its greatest perfection when the different ingredients of the must have been regulated to their proper proportions. Neither those wines which are too sweet, nor those which contain too much acid, will develop as fine a bouquet as those which are neither the one nor the other.

All the experiences of the latter years serve to demonstrate that, the musts, regulated by proper addition of sugar and water, furnish wines of finer bouquet than the so-called *natural* wines of the same season, from the same locations, and the same varieties of grapes. Those who wish to convince themselves of this, can easily do so, if they ferment the husks of so-

called *natural* must with a solution of 20 per cent. of sugar and water. The wine thus made will have a much finer and stronger bouquet than that first pressed, without any addition. All the wines made from varieties of the Fox grape will likewise develop a much finer and more pleasant bouquet if they have been increased by addition of sugar and water. The foxy flavor is very similar to cennanth ether in this respect; both are only pleasant and agreeable, if contained in the wine in very small proportions, and strongly diluted.

As to the ferment necessary, our American grapes contain sufficient to ferment at least treble the amount required, so that the assertion, "that the juice of grapes cannot bear any addition without at the same time losing wine-making ingredients," is entirely without foundation.

On the contrary, we find that all wines in which the proportions have been reasonably adjusted and regulated, are much better than the so-called *natural* wines.

Experiments on an extended scale have been made to this end in Germany and France. Samples of rationally improved wines from poor locations have been put among a number of samples of fine *natural* wines from the best locations, and the experts who were to judge them, were unable to distinguish them. The celebrated Johannisberg Cabinet, which formerly stood at the head of

Rhenish wines, has lost its former proud position, because Prince Metternich is obstinately opposed to the later advancements of science, and refuses to be benefited by them.

The "Grumburg" in Silesia, of which the story goes, that those who drink it must be awakened a couple of times during the night, and turn around, so that its sharp acid did not destroy their entrails, is now a very good wine, and the sparkling made from it is considered the equal of the best sparkling Hock.

That these improvements in wine-making should meet with a strong opposition, is but natural, and easily explained. In Germany, their strongest opponents were, and are yet, those who are in possession of the most renowned locations, thought they had a monopoly upon the wine trade, and could, under the old condition of things, so much easier obtain enormous prices for their products, as the wines from less favored locations were hardly saleable except in very favorable seasons. This has changed entirely. We find no longer those sour, unpalatable wines in Germany; and the poor vineyardists on the Moselle, who already despaired of their ungrateful soil, which so poorly rewarded all their toil, are now again gladdened by sure returns, as the doctrine of rational wine has made them more independent of the freaks of nature and the weather, which formerly gave them only one saleable crop in five or six years.

But although the vast importance of these improvements can not be denied, and have become established facts, there yet remains a class, who

stubbornly close their eyes, and fight against them like Don Quixote of yore against the windmills. However, they cannot stay the march of progress. The Prussian Agricultural Council have already several years ago, by an enlightened document, protested against the passage of laws prohibiting the improvement of must, and even the courts have sanctioned the progress in wine making. The court at Brudisal gave, even as early as 1859, the following verdict:

1. *Every wine is in so far an artificial product, as no wine is produced by nature, but only the product of the grape-vine, which is made and fermented by human skill and activity, and only through their help becomes wine.*

2. *There is nothing contained in gallized wines which is foreign to the ingredients of good wine; on the contrary, by the addition of sugar and water, ingredients which must be in every must, the unfavorable proportions between acid, sugar and water are equalized and reduced to such proportions as should exist in every good wine.*

3. *Those ingredients added to the must by gallizing are not injurious to health, nor do they take from the wine any of its health-promoting qualities.*

4. *Therefore, gallized wine is not an artificial surrogate of natural wine, but on the contrary, by gallizing of sour or inferior musts a wine is produced which is fully equal to the wines of medium quality.*

This was the verdict ten years ago, in a German court of law.

At the present day, when experi-

ments have led us to the knowledge that not only the inferior classes of must are benefited by rational improvement, but is to a certain degree applicable to every must, it is no longer proper to call it *gallizing* or *petiotizing*. Dr. Gall himself admitted, just before his death, that his method

had been excelled by that of Petiot, and even the latter has been excelled by the later discoveries of organic chemistry. Has not the art of brewing also gone through innumerable changes and improvements, and is wine making less a science than it?

(To be continued)

GRAPES IN CANADA—GROWING HARD WOOD VARIETIES FROM CUTTINGS.

CITY ENGINEER'S OFFICE,
HAMILTON, ONT., CANADA, FEB. 18, 1870.

GEORGE HUSMANN, Esq.:

Dear Sir:—I am much pleased with your journal on grapes and wine, which I would not be without for three times its cost. I have read most, if not all, your published writings on grapes and wine, and look upon you as our best authority.

Parties living so far south as Missouri, may fancy growing grapes in Canada unprofitable, but such is not the case, as we have a very good grape region here on the south shore of Lake Ontario, between this city and the Niagara river, where we are raising and maturing fine crops from all varieties not quite so late as the Catawba.

The Concord, Delaware, Rebecca, Iona, Rogers' Hybrids, &c., do remarkably well. Very generally we have no frost to injure the vine foliage before the 20th of October, last year being an exception to previous years, and leaf blight or any other disease is so far unknown here.

By reference to the December number of *Tilton's Journal*, you will find I was awarded two first prizes at the show of the Lake Shore Grape Grow-

ers' Association of Western New York for grapes grown here last season, viz.: "The best white grape for the table"—*Rebecca*; and "The *Clinton*."

As you, in so kind a manner, invite contributions to your valuable journal, I submit a receipt by which I have been most successful in propagating the Delaware and other varieties, and by which I believe good plants might also be made from cuttings of your "*Norton*" and "*Cynthiana*" varieties, said to be quite as difficult to strike as the Delaware, if not more so.

Make two eye cuttings during the fall or winter, in the usual way, from well ripened, one year old wood, with a sharp knife, *and not with shears on any account*. Pack the cuttings in sand, in a cool cellar, and don't remove them until the vines out doors are in leaf. Then dig a trench in well cultivated soil, in an easterly and westerly direction, which fill with sand, and in this set the cuttings close together. Consolidate with your feet, and mulch slightly with saw dust, tan bark, rubbish, straw, or leaves. Have prepared two boards,

each twelve inches wide, nailed together at right angles, which place over the cuttings. In ten days you will find every vine has made a start, then raise the covering on the north side, about four inches, to admit light and air, and gradually raise higher, as the vines grow, and towards the end of summer remove altogether.

By this plan I have made superior plants, not losing five per cent.

Yours, sincerely,

W.M. HASKINS,

City Engineer.

[Thanks for your interesting communication. We are glad to hear that you succeed so well with grapes. We desire to see grapes grow and succeed well everywhere.

The Norton, Cynthiana and Hermann are the most obstinate of all the varieties to propagate we have, much more so than even the Delaware. Your method we think a good one, but most too expensive to be followed on a larger scale. A heavy mulch will almost answer the same purpose, in our opinion, but our readers can not go amiss by trying both.—ED.]

GRAFTING THE VINE.

FRIEND HUSMANN:

In the March number of the GRAPE CULTURIST I notice that a subscriber of Warsaw, Ill., intends taking up an acre of Catawbas and replacing them with something better. Why did you not tell him in your editorial remarks to graft them instead of removing and replacing with others?

If they are not diseased beyond redemption he certainly will gain largely by grafting them. Let it be done deep, say six inches below the surface of the ground, in which case the new variety will in a few years be established upon its own foundation.

Were it my case, and the Catawba vines in anything like health, I would not have his proposed change made, if some one would furnish the new vines free of cost and do all the work of taking up the old and planting the new in the bargain.

If the coming season be a fruitful one for the vine I think we can show

you the importance of using old stocks after the above advised plan.

In your remarks on Werth's Grafting the vine, where you state that for late grafting, that is, when the leaves have expanded, the scions should be kept dormant. This is not quite the thing I fear, although it was formerly my impression.

If your vine is in full vigor of starting growth, and your graft quite dormant, the vine will have a great tendency to break out in lots of suckers before the graft can callous and unite, and often drown it, as it were.

But let your grafts be in a forward condition, say the buds nearly ready to burst, and success is almost certain, if the operation is well done.

Last spring I set two Creton grafts which had started nearly an inch upon vines that had grown two feet or more successfully, while some other sorts, which I had kept back, nearly all failed

This is somewhat of a *critique*, I know; but the kindly feeling existing between us will assure you that it is given in the true spirit.

Yours truly, S. MILLER.
BLUFFTON, Mo., March 12, 1870.

P. S. My former ill success in late grafting I now attribute to keeping the grafts in too dormant a condition.

S. M.

[We like to be criticised, as we wish to learn while we teach; therefore friend Miller need not fear that he will "hurt our feelings." But, while grafting is a great help to test new varieties, and for experimenting, we think he will acknowledge that success is not always certain, and that grafting an

acre or two is rather a serious undertaking for any one who is not familiar with all the niceties of the operation. We believe that nine-tenths of those who have unsatisfactory Catawba vineyards would do better to dig them up than to graft them, *not* because grafting is not *practicable*, but because they will not get the grafts to grow, or careless hands will disturb and ruin them when they are growing. Thus it is with scions on which the buds have started already. We all know that the bud is extremely brittle and tender then, and that the slightest touch will break it. Therefore we advise *early* grafting when root and scion are yet dormant and can be handled with impunity.—ED.]

THE EUMELAN.

This variety was found as a chance seedling at Fishkill, N. Y., where it has been in cultivation in the garden of Messrs. Thorne for many years, yielding abundant crops of grapes, remarkable both for goodness and earliness. The original vines were purchased by Dr. C. W. Grant, and are now in the possession of his successors, Messrs. Hasbrook & Bushnell, Iona Island, from whom we obtained it. As we can not speak of it from our own experience, we give the description of its propagator, Dr. Grant, leaving out all excessive praise, which, in our opinion, has damaged his success more than all his opponents:

"Bunches of large size, elegant form, and proper degree of compactness; berries large black, with fine bloom, adhering firmly to the bunch long after

ripening; flesh tender, melting, all going to wine-like juice under slight pressure of the tongue; ripening very early (even before the Hartford) and evenly to the centre; flavor pure and refined, very sugary, rich and vinous, with a large degree of that refreshing quality that belongs distinctively to the best black foreign wine grapes. Vine a strong grower, producing remarkably short-jointed wood; leaves large, thick, dark-colored, firm in texture (it strikingly resembles Elsinburg), and gives promise of being a very hardy, early, healthy grape. The American Horticultural Annual of 1869, says of the Eumelan: · This variety has been tested in several localities. It has proved with us, near New York, remarkably healthy in foliage. The Eumelan makes a superior



THE EUMELAN.

red wine, and, should it prove successful, will rank high among wine-grapes."

We copy the annexed cut and description from the Catalogue of Isidor Bush & Son. What we have been able to gather about its health and growing propensities throughout the country, seems to be favorable, and although we can not say any thing about it from personal

experience, we are determined to give it a fair trial, and would advise our readers to do so, on a limited scale. It seems to belong to the southern division of the *Aestivalis* class, of which we have already so many valuable grapes, and of which the *Herbemont* may be considered the type. Its foliage seems to have been good the last very trying season, which is a favorable indication. ED.

—————♦♦♦—————

D'HEUREUSE AIR TREATMENT.

(Concluded.)

It is obvious, that must deprived of gluten (what no other known process accomplishes) in the hot state as explained, like any other extract, may be subsequently concentrated (without the addition of sugar or anything else); kept in casks on draught as preserve, confectionery, or may be employed as addition in wine-making in distant parts to produce greater varieties of wine at any place. Enormous quantities of thus purified concentrated must from California, or other Southern grapes, of little bouquet and much sugar, could be more profitably employed to blend with green musts of Northern strong flavored grapes, poor in sugar, than turning either separately into wine.

CENTRALIZATION IN WINE INDUSTRY.

If we recall to mind numerous home manufactures only a few generations back—for instance, the flax grown on the family field, spun by the family, woven on the family (heir) loom, and

taken periodically to market to be sold—we wonder at the slow, tedious, penny-wise business, that aimed to do all the work but earned little. Mills now buy the flax, and sell the linen to the dealers. All other industries came to be remodelled in the same manner; producers, manufacturers and dealers are distinctly separated, to make it pay; and still we see wine men adhere to the primitive policy in wine making. Certainly as long as wines had to be stored several years to be ready for shipping, the excuse was not unfounded that the investments required of district establishments were enormous. Air-treatment, however, annihilates this objection, permits the cellars to be cleared a few months after vintage, to be ready for next season. Central wine press-houses in grape growing districts, are bound to be profitable, to take before long the place of the numerous small press-houses, purchase grapes by contract for years ahead, and a few months after vintage turn over their

ripe matured product to the dealers. Large establishments work cheaper, can have more intelligent and competent supervision, have a choice of numerous varieties of grapes to blend and produce choicer wines than the small producer can, and make the business easier, more agreeable and more profitable on all sides by yielding quick returns to all parties interested. The American wine industry can only prosper by employing quick ripening methods in manufacture, and division of labor as indicated.

SHIPPING GRAPES.

Grapes more qualified for the table are produced in large quantities and offer better remunerat.on to the growers to ship to a distant market than to the press-house. A great deal, however, is now spoiled in transportation and storing; it behooves us to reduce the loss to the lowest possible figure. Everybody has observed that confined air favors and quickens decay, that circulation (currents) of air preserves. This demonstrates the benefits of the air-treatment without direct oxidizing action in the gluten. Through the compartments of the railroad cars, the storehouses or vessels, currents of air are directed; occasionally the vapors of a little burnt sulphur (or other disinfectant) are employed in conjunction with air to destroy the germs mold or decay that may have found their way, or even attached to the grapes or other produce. A (Root's) blower, run by hand or power, furnishes air or other gases to a system of pipes to the bottom of the compartments (a number of which operated in turn), and the air, af-

ter it circulated over the objects in the compartments is allowed to escape by flues, or by these may return to the blower to repeat its action. All kinds of fruit, produce or meal are preserved for a long time at any season of the year in this manner, which permits an exchange of the products of the various part of the country, aye, of the globe, heretofore unattainable.

CONCENTRATED PRESERVES.

The preparation of juices or extracts, purified by air-treatment and concentrated, was alluded to under "Sweet Wines." Many thousand tons of fruit will annually find their way into market in this condensed shape, and with great benefit to all concerned; while in the destructible green state they would have remained almost worthless. The aromatic fruity flavors are mostly retained by conducting the process of purification and concentration at a heat not exceeding 140 to 150 deg. F.

There is no necessity to put these articles up in air-tight, hermetically sealed jars or cans; barrels answer the purpose. Nor need those alkaline powders and lyes, under the name of preserving powders or fluids (every one of them detrimental to the digestion of the consumer), be added to the air-purified preserves; their keeping properties are secured by deglutination. It will be remembered that the object in employing the aforesaid injurious adulterations, is to neutralize an acid action for some time, by which alone fermentation or putrefaction can take place. Glycerine, oil of hops, and other essential oils, even sugar, salt, alcohol, &c., are employed for the same purpose; that is, to act for the time being in the capacity

of an alkaloid, and to retard or prevent impending changes.

The mere mention makes it plain, that innumerable articles could be reduced to the fluid, syrupy or solid state in the manner described on the ground, for the sake of economy; to prevent the loss by spoiling in transportation or storing, to reduce the freight by decreasing the bulk, and to return the refuse to the soil as manure, after it served as fodder. All this, and more, will be generally adopted before many years pass by.

RETROSPECT.

The foregoing attempts to demonstrate the importance of air-treatment for American Wine industry, and to foreshadow some of the changes which it is bound to effect; equal changes by the same powerful agent, the support of all organism, are certain in numerous other industries. The revolution worked by Bessemer's (air) process in iron and steel manufacture, is but the forerunner in the manufacture of organic substances of almost any kind by air-treatment, a revolution, however, pregnant only of unalloyed benefits to the whole human family. In this progressive spirit it is hoped, it will be received by those millions whose health it secures, and whose labors it shall lighten, be the same, wine making, brewing, malting, distilling, sugar or oil making, tanning or the manufacture of extracts, transportation or storing, the purification of spirits from noxious fusel oils, or of plain drinking water from organic contaminations.

Not to give rise to misconception, it should be stated that the inventor

of air-treatment is far from considering the details, as hereinbefore published, rigid rules for all cases alike, but mere guides; in fact, modifications in details, according to the species of must, &c., treated, in the hands of intelligent experts will, no doubt, give excellent results. For instance, where a few weeks longer time for fermentation is no object, one vigorous air-treatment of the must, for one-half to one hour, at about 65° F., previous to fermentation, may answer; in other cases one-fourth to one-half hour preliminary vigorous action, and subsequently gentle treatment during fermentation several times for one or two days, or only once every day, may do the work. It must necessarily be left to those qualified and inclined to systematical experiments, to ascertain the *best* modes, applicable to the conditions that, constantly varying, come into play. It seems essential to accelerate the fermentation, so as to carry the greatest amount of must as quickly as possible through the ferment-rooms, that are frequently badly protected against cold, generally not arranged for heating, and of limited capacity. Proper air-treatment performs it, abler men may develop more.

R. d'HEUREUSE.

[We call the special attention of our readers to this able article of Mr. d'Heureuse, as we firmly believe that his process of air-treatment will be of immense importance to the grape growers of the country. He has so fully explained the principles of his method that further comment from us is superfluous.—EDITOR.]

HIGHER DUTY ON WINE.

The Ways and Means Committee of Congress have proposed to raise the duty on low-priced wines from twenty-six to fifty cents per gallon. This class of wine comprises about ninety per cent. of the whole quantity imported.

When gold was at 140 the duty desired for the full protection or encouragement of American wine growers was seventy-five cents per gallon, and it was believed that such a duty would double the supply of native wine in one year, the present prices not being high enough to tempt the grape grower, located convenient to the large cities, to make wine when the fruit would yield a quick return at an average of seven cents per pound.

The proposed increase of duty, though *no more in proportion* to the present price of gold than the old duty, as compared with the price of gold at the time it was established, meets with remonstrance from the wine importers of New York City, who are preparing a memorial to Congress on the subject. In this memorial they advance the following argument: "It is a mistake to believe that the interests of our own grape culture are unfavorably affected by a low duty on imported wines. Our native production of wine is far behind the consumption, and the right application of the wines of Europe, in rationally blending them with those of America, will do more than anything else to open the market to the latter and make it remunerative to the growers. In support of this position we refer to the well settled principles of œnology and

to the testimony of all the experts in the country."

That the wines of America are "rationally blended" with those of Europe is well known, but as the blended article is sold under the name of the European, it is evident that the American wine is not the one sought to be improved. So long as our wines are absorbed to give sprightliness to the imported wines, deadened by a sea voyage, and in extending others of a higher price, we can never expect our products to become legitimately established in the American wine market: and if Congress would raise the duty on the cheap wines twenty-five cents per gallon annually for three years, it would be very soon seen that the supply would equal the demands of the country, and that the increase of *this one duty at least* would oppress no one, give to our husbandmen, who are now experiencing low prices on their products, a new field for effort, and take from the debtor page an immense sum in our account with Europe.

It is very probable that Congress is not informed as to the growing magnitude of the wine business of this country. It is not possible; for so far as statistics are concerned we are ignorant ourselves, though an occasional item gains the surface which gives an intimation of it—an item, for instance, in the last number of the CULTURIST, which gave a list of sixty vineyards around Peoria, Ill., having about 150,000 vines under cultivation, representing at a fair estimate as many gallons of wine, if used for that purpose.

It is useless on the eve of a new census to speculate as to the number of vines around Hermann, or the products therefrom; but vineyards cap every hill. Where there was one acre five years ago five now surround it, and while the annual product at that time was less than fifty thousand gallons, that quantity was made by one firm the past season; and proportionately, considering the immense number of grape roots that have been shipped from that

place for several years past, what may we consider will be the exhibit for the State when the census statistics shall have been collated. D. W. TAINTER.

HERMANN, Mo.

[This very interesting article reached us long after our own comments on the same subject were written. It shows plainly what the *grape growers of the country* think of the measure proposed. We endorse every line of it.—ED.]

For the Grape Culturist.

TRAINING AND SUMMER PRUNING.

MR. EDITOR: I will say a word on several communications in the February number, page 45-48. I think the experience of the vintners generally, at all times and in all countries, is agreed upon this, that in the open vineyard the vines should be kept in a sort of dwarfed state, more or less. The canes and shoots should not reach higher than the hand of the vintager can conveniently reach without the use of a ladder. Therefore, a trellis of from $6\frac{1}{2}$ to 7 feet high I deem too high by 1 or 2 feet.

After manifold experiments I have uniformly adopted seven feet as the most proper distance of the rows, while the distance in the row must be conformed to the peculiar character of the vine and the richness of the ground.

Like the editor, I am in favor of rather long pruning and afterward regulating the amount of fruit reasonably to be expected by thinning out, but—like him—I insist upon this

being done as soon after the vegetative life has been resuscitated as practicable. Mr. Hoag says (page 48): “After tying up the canes in the spring, and when the new growth has reached even 4 or 5 feet, we prune again, cutting out what we deem necessary to sufficiently balance the vine; *the ground is often literally covered with lopped branches, etc.*” This is precisely what I most hate to see in a vineyard, a wholesale carnage which can not but seriously disturb the whole system or natural order of the plant. Indeed, the patient vine will endure more abuse than most other living beings, but smarts and whines under the mistreatment when suddenly checked in its luxuriant development, and only gradually recovers from the infliction. Just the young leaves and shoots are the vine’s elements of life; by removing them in masses the whole plant must and will sicken, till by new exertions the lost foliage is restituted. Deeming sum-

mer pruning to be one of the most essential operations of the vine-grower, I demand, however, that it shall be done without inflicting more than the least possible violence to the plant. Therefore, in thinning out you must not wait till the forms (the clusters of incipient fruit) are fully unfolded and have bloomed, but pinch them off forthwith so soon as they are distinctly seen, and at the same time shorten the fruit shoot right beyond the last remaining form, whereupon large and healthy leaves just near the clusters and best fit for their protection will be brought forth. In removing the barren shoots, or superfluous shoots, do not allow them to grow several feet high before cutting out; whereby you would wantonly

waste energies and enfeeble the remaining shoots designed for bearing wood, but rub them off in their earliest stage when an inch long or less. The removal of "entire canes," after being furnished with leaves, I deem bad policy. The planting of the vines at a very great distance is no sure means against rot and mildew, though both may be furthered by the want of air and light; a Catawba standing solitary and alone may rot as badly as other vines in the dense row.

FR. MUENCH.

[Our valued correspondent gives our views so fully and precisely, that we can only endorse every word he says, and refer our readers to the article of summer pruning, republished from Vol. 1 in last number.—ED.]

HYBRIDIZING THE GRAPES.

WALLA WALLA, W. T., March 22, 1870.

DEAR HUSSMANN: Much has been said and written on the subject of crossing and hybridizing the grape, and among some writers there seems to be an entire ignorance of the subject, which seems likely to mislead those who would take an interest in this important branch of progress in improvement, and cause them to fail in the laudable effort to produce new and improved varieties of grape, as well as other matters growing out of the application of the principle, to which I will allude in the course of this article.

Very able writers have given the process of hybridizing, and are so far from correct that I think it best to

go into the particulars of the operation. Select a bunch of grapes, near the flowering season. You will observe some of the most advanced buds or berries are turning pale yellow at the base of the berry where the petals are attached to it. This specimen will soon bloom (if we can call it blooming: for it is so unlike any other plant in this particular that it can hardly be called a blossom). Watch closely now, and as the sun warms the air, one of the petals or parts composing the cap of the berry will let go its hold at the base where it connects with the berry and will curl up. Soon another does the same, and still another, and another; the

fifth, however, remaining and having a tendency like the others to curl or roll, will throw the cap of petals off from the anthers, which until this time are folded neatly together on the stigma, and the stamens coming from the base of the berry to the anthers now spring back from the berry, holding the anthers out at a distance from the stigma like five sentinels guarding the work that is now *complete*—I say *complete*—and now let us go back and watch another part of the process, to see if I am correct. First, however, let us take a sharp pointed knife and remove the cap of petals. At this stage we commenced our observations, and we find as before said, the stamens lying against the side of the berry, and the anthers folded neatly on and around the stigma.

There is now no pollen, but the anthers are a clammy substance, which in two or three minutes' exposure to warm air, dries and becomes a fine powder or pollen of a yellowish hue, instead of the watery color, the stigma is dry and a clear green; but as soon as it is exposed to the air, a little *moisture*, clear and watery looking, rises on the stigma. This, mind, is the condition upon artificially removing the cap. Now let us see the natural operation. One, and finally two of the petals let go and curl up—the air enters, a third petal curls up—the clammy matter becomes dry, forming the pollen—then drops of moisture appear on the stigma, the pollen is absorbed by it, and carried down through the pistil to the embryo seeds, the fourth petal loosens its hold, the whole cap, as before stated, curls off, the stamens

spring back, and in five to ten minutes the moist or viscid matter is *dry* on the stigma, the work of impregnation is *done*, and all the ingenuity of the human race could not arrest the process and introduce foreign pollen to this stigma and produce a hybrid or cross.

I present these as facts to the horticulturist and botanist as undeniable, and challenge any living man to disprove them.

Now let us apply the process laid down by several writers on hybridizing.

One says, “watch the falling of the petals, and with a pair of small scissors cut off the anthers and *prevent* natural fertilization; then dust the stigma with the foreign pollen and protect for a day or two to keep insects from bringing and introducing other pollen, *which they often do*, and again apply pollen after a few hours and for a number of days.” It is only necessary for me to mention the above to call the attention of interested men, and they will see the fallacy of such statements.

But there is a matter of much importance connected with the principle of hybridization. As intimated at the outset, aside from that of producing a new grape, as I see from various sources that efforts are being made to fertilize unproductive varieties, such as the Taylor, by planting them with other varieties that bloom at the same time. Now, if, as I positively affirm, that accidental fertilization is absolutely impossible, and if the natural process of fertilization is as I describe it, I have clearly proved that point; then why should our grape culturists

go to the useless expense of planting as stated?

But the most important point is, that we may not spend our time trying to introduce foreign pollen into the stigma of a grape that is already fertilized and the stigma has become dry, and then go on for years, plant and watch with care, and at last find that we have only the natural variation or tendency to sport, as the result of our labors.

Now I will give a process for hybridizing that will succeed.

Observe the approach of the flowering season, and wait until some petals have fallen, so as to be sure that the time has arrived for operating. Select a bunch well located for convenience, and cut away or thin out the berries; choose a berry that shows a yellowish line at the base of the petals; apply the point of a sharp knife and remove the petals, and with a pair of small scissors clip off the stamens, and if your subject was near casting its petals, naturally you will not have to wait more than five minutes before a slight moisture will appear on the stigma; then apply the pollen you wish to introduce, either by a camel's hair brush, or better by taking hold of the anther with a pair of small tweezers, leaving the stamen attached with its load or covering of pollen, and rub or touch the stigma until the pollen is clearly seen on the stigma. If the pollen has dropped from the stamens and is in a paper or some little vessel suitable for the purpose then take a thin blade of steel or wood and carefully pour on the pollen. I often use the point of my knife blade to apply the pollen; any

way, so that you get it on when the stigma is moist, for then and only then is the stigma in season to receive fertilization, for after this viscid matter returns into the pistil to the ovules, the stigma never again becomes moist, and hence no fertilizing matter can enter, and that berry must fail. This is not a difficult operation; it will only be necessary to remove the petals at the proper time by knife, scissors, or any other instrument, and apply the pollen at the time stated, by brush, blade or otherwise. And I ask every man who has a grapevine, to examine the flowers and make a trial, and then say if he believes that *accidental* crossing or hybridizing is a *possibility*. Of the advantages of hybridizing it is useless for me to add any thing, as much has been said and written, and all intelligent persons are convinced of its importance, but of the usefulness of studying the structure of the flowers, the habits and mode of fertilizing, etc., there has not been enough importance attached, as by doing so we may be able to remedy some of the failures in setting fruit that certain varieties are liable to.

A. B. ROBERTS.

[We would like to "argue the point" with our friend, but our space will not permit for this number. We know from personal observation that Taylors have been impregnated by Clintons, and also by male plants standing beside them, and produced much more perfect bunches. We do not know *now* it was done, but we have observed the fact in its results, and "facts are stubborn things."—Ed.]

A CHAPTER ON BORERS: TEREBRA EJUSDEM FARINA.

Nearly every tree, plant and animal has an attendant borer that laboriously gnaws at it. The ones which I now, propose to notice are those annoying the vineyardists: one of the animals of the human species, most bored.

There are two kinds of borers known to trouble grape vines and their owners, neither of which have as yet effected a lodging within my plantations; though there doubtless are some vineyards, in and about Nauvoo, that may have suffered from their depredations.

One of these borers was first brought to light by some doctor—of the inquisitive kind (confound them), who must always go at the root of things. This borer, (*not* the doctor), attacks the roots of vines and riddles them pretty thoroughly; it is quite hurtful but does not claim my immediate attention; some more worthy but rather enthusiastic entomologists having promised to watch him and report, I abandon the creature to their tender mercies.

The other, and the only one which now claims my special attention, is generally a close-shaved, roundheaded borer, differing from the peach borer in being pale faced, the head stuck on a long black looking body, with only two well defined legs; no *prolegs* but many *pronouns*.

This indefatigable, and in no way over-scrupulous borer, lays its eggs at all times of the year at the base of stumps, a piece of furniture inseparable from those halls known as Tem-

perance Halls (.) the why I know not, unless it be by way of antithesis, it being a matter of fact that therein the most senseless and intemperate ideas are hatched, and kept alive, to bore the unfortunate mortals who befriend the vine: thence comes the total-abstinence borer.

How to ward off or arrest the continual encroachments of this garrulous and obstinate driller has been the constant thought of the successors of Noah, most affected by the persistent gnawings of this vermin.

The task might have proven easy in the enlightened and progressive impulsion of the nineteenth century had not an unforeseen *miscegenation* increased the difficulties in the way.

Republics have disadvantages that mar their advantages! More than any other human aggregations they are subject to the pernicious effects of that most plentiful and destructive insect, which has been called by distinguished naturalists, the Politician. The world over it is considered as the bane of democratic institutions; entomologists well known, for their careful observations have, most appropriately, classed this parasite among the genera borer, and a most disastrous one has it thus far proven.

There generally is no genuine sympathy between these two classes of borers, their general instincts and appetites leading them to bore for the juices of human animals in quite different ways: the miscegenation mentioned above lies in the fact of a most unnatural combination between them to suck

dry the poor, defenceless vintner; and it is in this union of brandy and water where lie the difficulties which beset his path in his laudable attempts to arrest the ravages of the Total Abstinence borer.

But here we have a chance for a bit of philosophical reflection: Verily the mysterious arrangements of nature should ever excite our wonder and admiration; the same bar over which flows the spirited springs that alleviate the indomitable thirst of the Politician borer furnishes also the food for its condemner and hater, the Abstinence borer. Allah is great! but in borers there are no profits.

These borers are common in our fruitful Union, and their presence may be detected by the gab, or saw-dust which they throw out in abundant quantities in the eyes of their innocent victims, or in the fact that the heads of those who cave under their attacks, soon show signs of being cracked, as bad as the bark of trees under similar treatment. Unlike the vegetable borers, pruning them out with a knife would no doubt prove dangerous; scalding water might be too radical a cure; rubbing or throwing soft or hard soap on or about them

seldom does good; even *common sense* powder is no preventive.

The one thing peculiar—though not remarkable—about these borers, is that they move, like troops, with elected officers. It is asserted, and no doubt often proves true, that nothing short of some fat juicy office can arrest the onward attacks of the leaders: this is the only kind of soft-soap remedy which may prove effectual, but it must be applied plentifully and most vigorously. Shutting them up in wine-cellars sometimes proves efficient, but the remedy is said to be most ruinous. It is to be hoped that the great and ponderous minds now assembled in convention in Springfield, to doctor the sores of a diseased constitution, may not find it out of their way to invent—they possess enough genius—or recommend some remedy which may prove a palliative, if not a cure, for these abominable borers. Should nothing happen to remedy their increase, I know of no really effective remedy except leaving the business. Vineyardists will take due notice thereof, and govern themselves accordingly, as they best please.

N. TOM. O'LOGY.

GOLDEN HILLS VINEYARD, March 5th, 1870.

ANTS IN VINEYARDS.

PORLAND, Callaway Co., Mo., March 15, 1870.

Editor Grape Culturist:

Dear Sir: In reply to F. Hildebrand's request for information concerning "Yellow Ants," I would say that they breed in decaying wood, sods, under rocks, etc.,—that he can find them now possibly in his stakes or trellis posts in great numbers.

They can be detected before appearing above ground, by streaks of mud or sand, which they deposited on the surface of the stakes last summer, and under which they ascend. I have found them in stakes 18 inches below the surface, and have taken up such as were "*inhabited*" by the scamps. Last year I destroyed most of them

early in the season—first, by taking up the stake and hewing off the decayed part occupied by them; second, by cutting off the tips of young shoots on which they had collected, and destroying them; and last, by putting wood ashes around infested stakes. With trellis, where the posts are generally farther from the vines, a safe and summary way would be to scald them. Notwithstanding the numbers destroyed among my vines last year, now when making trellis, removing old stakes, or spading up our garden, I find great

numbers of them. They threaten being a formidable enemy of the grape grower here the coming year.

With many thanks for the efforts you are making for grape growers and wine makers, please accept my thanks for your article on "Hunmbugs." Keep on, you are on the "main track"—let the bugs hum. Very respectfully,

JAMES M. COLE.

[Thanks for your communication. It is just of the kind we want; plain, matter-of-fact advice. Let us have more such items.—EDITOR.]

—————
ANNUAL MEETING OF MISSISSIPPI VALLEY GRAPE GROWERS' ASSOCIATION.

The meeting took place in the handsome rooms of the St. Louis Agricultural Association, liberally tendered for the occasion by its gentlemanly Secretary, Mr. Kalb.

As the absence of the President, Mr. James E. Starr, made it our duty to preside the first day, we were unable to make as full notes as we could have wished. We were unable also to obtain the full reports of the different wine committees, as we had to leave the city the day after the meeting. We will give them in the next number, in full; and as we are so crowded with important matter for this month, will content ourselves with a short synopsis of the proceedings, and some discussion of varieties, as well as we can remember them.

The election for the ensuing year resulted as follows: Dr. L. D. Morse, President; Dr. E. S. Hull, 1st Vice President; Dr. J. H. Coe, 2nd Vice

President; Wm. Muir, Secretary; J. H. Tice, Treasurer.

DISCUSSION OF VARIETIES.

Goethe (Rogers' No. 1.) Was generally thought well of, for wine, table and market. All concurred that it was vigorous, healthy, productive and hardy, although Drs. Spalding and Hull expressed doubts in regard to its foliage, as they thought it too thin to withstand our summers' heat, although it stood the last summer remarkably well; considered the most promising grape for white wine now under trial.

Wilder (Rogers' 4.) Dr. Hull said it had a facility of ripening its fruit without leaves. Several expressed doubts as to its foliage being healthy enough, though all concurred that it was prolific, and a most excellent grape in quality. Doctor Spalding thought that the Merrimack (No. 19) more reliable in foliage.

Ires. Was recommended as a reliable, healthy grape, making a good wine, and thought by Messrs. Colman and Spalding to be a desirable grape for early marketing, and also for late market, as it holds well to the bunch and ships well, although not of very good quality. Seems to have stood the last season remarkably well every where, as it is hardy, healthy, and productive after its third year, though not an early bearer.

Rentz. Dr. Spalding thought it a promising variety for wine, especially for sparkling; said he had drank the best sparkling he ever tried from it. The vine was healthy, productive and hardy, thought not fit for the table or market.

Martha. Seemed a general favorite, though some expressed a doubt whether it would make better wine than Concord; had rotted some with Dr. Spalding; seems not to be sufficiently tested with the majority present to express a decided opinion.

Muxataurney. Was highly recommended as a hardy, healthy vine, and the fruit of very fine quality, a fair, though not rank, grower, and sufficiently prolific after the third year.

Telegraph. None seemed familiar with it, except ourselves, and we need not reiterate our opinion to our readers. We think it one of the promising new varieties for red wine, as also for early table and market we know, and the growth and foliage are unexceptionable.

Cynthiana. Those who had tried it concurred in the opinion that it made the best red wine we yet have. Messrs. Riehl, Spalding and Husmann spoke warmly in favor of it, Mr. Riehl contending that he could distinguish the foliage from the Norton, and still more the fruit and wine. The question of identity with Norton was discussed at some length, and all concurred in its vast superiority, in the quality of its wine, over the Norton, as it is more delicate, lighter in color, and of a much finer flavor.

Dracut Amber. Was recommended by Mr. Mason as a good grape for early marketing, productive and healthy. Others thought it too foxy for any purpose.

[In our next we will give a more detailed account of the proceedings.
—EDITOR.]

HOW MANY ACRES OF GRAPES HAVE WE IN THE UNITED STATES.

This question is often asked and answered so variously and widely apart, that I feel like again putting it up for the replies of readers of the GRAPE CULTURIST.

One of our pomologists—who has made the subject somewhat of a study—estimates that if all our vines, now

in vineyard and in gardens of amateurs, were placed in vineyard at distances of 8x10, we should have over 2,000,000 acres. He has taken records of townships and counties, graduated them, and throwing in California at 200,000 acres, of which 100,000 are figured up by actual records of the

large vineyards, without reference whatever to the amateur vines or vineyards of small extent, he feels that his estimate is one below rather than above the actuality. ATAD.

[Our correspondent is right. Let us have statistics, and try to ascertain the importance of American grape

growing. Please send them in to us, kind readers of the GRAPE CULTURIST, and we will sum them up at the end of the year. Let us show to the world, and especially to the importers, that we have become a wine-producing nation. We think the above figures none too high.—EDITOR.]

SPARKLING WINES.

BY ISIDOR BUSH, ST. LOUIS, MISSOURI.

This class of wines, which graces almost every festive board of the present day, and which—considering the magnitude of its consumption and of its value as a market article—stands at the head of the whole liquor line, was first manufactured in France, in the province of Champagne (whence its name) about the middle of the last century.

Not that the wines of that province are peculiarly or better adapted than others; on the contrary, they lack bouquet and spirit. And from the very fact that those wines were inferior and could not be sold in competition with other French (still) wines, the manufacture of sparkling wines was resorted to. Sugar and cognac, at first added to give these wines more strength and life, naturally led them to this invention: The manufacture of sparkling wine, in which the vintners of the Champagne became experts. And they carefully kept it a secret for a long time, so that most people thought the wines of the Champagne were naturally so sweet and sparkling, while in truth they can no more or easier be manu-

factured into sparkling wines than any others.

This product soon grew in favor and enriched its producers. Rheims and Epernay have gained a worldwide fame; the rich widow Cliquot became a name more known than that of the chief heroines of ancient and modern history; and nothing can give a better idea of the magnitude of trade in this product than the following figures taken from reliable official data: During the last 25 years 187,693,990 bottles of Champagne have been shipped to foreign markets. The tables of the Chamber of Commerce of Rheims show an ascendant course from 9,000,000 of bottles in 1844 to 22,000,000 in 1869. The home consumption in France has been about 3,000,000 of bottles every year.

We do not attempt to enter into a detailed description of the process how these sparkling wines are made; but general brief outlines of the mode of its manufacture may be of interest to those who do not know it already.

Wine, about one year old and clear, is brought into a new fermentation

by addition of sugar (syrup) in such a manner as to retain the carbonic acid (in well corked strong bottles). After this fermentation the sediment is removed, sugar is again added to sweeten it, and by the absorption of

the carbonic acid the sparkling wine has been produced. This process requires however from one to two years' time, good cellars, careful and skillful handling.

[*To be continued.*]

OBITUARY.

Again it becomes our painful duty to announce to our readers the death of one of the veteran grape growers of the country, Col. John J. Werth. The task is a doubly painful one, as his decease also deprives us of one of our ablest contributors— one so intimately connected with the short history of our Journal, as to almost justify the appellation of its father; for Colonel Werth it was who first requested us to publish such a journal, suggested its name, and was from its start one of its warmest supporters and friends. Nearly every number contains an article from his pen, always breathing the same genial feeling, true love of the grape and mankind; clear, practical and to the point. Although it has never been our good fortune to meet him face to face, we feel that we have lost a *friend*, whose place can not be filled again. We have before us a letter, dated March 9, but three days before his death, from which we quote the following: “I thank you for the sympathy expressed with my condition. When a man has passed his sixty-third year, he can not hope to get rid entirely of as troublesome a companion as asthma, but I am much better now, and hope to be more regular in future in my contributions. I am *much* obliged by the very accurate printing of my

contributions in the *CULTURIST*, the most so of the many contributions to the press, political and horticultural, during thirty years. This testimony is due to your compositor.”

On the 11th of March, while on a visit to a friend's grapery, near Richmond, Va., he ruptured an artery, and on the next morning at 4:30 he breathed his last.

We immediately wrote to his son, Mr. John Werth, expressing our sympathy, and requesting such data of his father's life as would be of interest to those who had so often perused his writings, and received the following reply:

RICHMOND, VA., April 3d, 1870.

GEO. HUSMANN, Esq., Bluffton, Mo:

Dear Sir: Your favor of the 24th ult. came to hand a few days ago.

In complying with your request, I can not do better than furnish you the enclosed notice, taken from one of our city papers, with a few additional remarks from my own recollection of my father's life.

His first attention to the culture of the grape dates, I think, from the year 1825, about the time of his first embarking in coal mining, an amateur culturist of the grape until 1867, since which time he engaged more extensively in this line.

In 1850 he visited California, and after a general prospecting tour through that State, *gave* to the public the result of his observations in pamphlet form,

entitled "A Dissertation on the Resources and Policy of California, Mineral, Agricultural and Commercial." This work met with such approval by the public, both at home and abroad, that it was translated into seven (7) languages, and generally disseminated throughout Continental Europe, one or two of the crowned heads ordering some hundred thousands of copies for distribution among their subjects.

Since his return from California (1852) he has been generally engaged in coal mining. A public spirited man, he thoroughly identified himself with questions of material importance to his State, but more especially the agricultural interest.

Hoping that the material furnished will be sufficient to enable you to construct such an article as you desire, and thanking you for your high appreciation of my father and desire to honor his memory, I am, sir,

Very respectfully

And truly yours,

JOHN WERTH.

"DEATH OF COL. JOHN J. WERTH.—On Saturday morning at 4 o'clock Col. John J. Werth died near this city. Returning home Friday evening he was taken sick, and took shelter under the roof of a hospitable citizen of the county, where he breathed his last.

"Colonel Werth was one of the most useful men of his day. Well informed, active, and earnest, he was always en-

listed in some enterprise for the public good, to which he gave his hearty and efficient support. In his own undertakings he was one of the most energetic of men. He was especially interested in agriculture, horticulture, and fruits, and no man was more useful in the direction and management of the fairs of the State Agricultural Society. His death deprives that Society of one of its most valuable members. He bestowed much attention upon grape culture, and was himself an extensive cultivator of the vine.

"These tastes were blended with a strong practical capacity for more active and exciting pursuits. He began business in this city as a hardware merchant, turned miner, and acquired a large amount of information and practical experience in that business. At the time of his death he was conducting some important mining operations.

"Colonel Werth was socially one of the most generous, frank, and estimable of gentlemen. He was, furthermore, a man whose conversation was alike instructive and entertaining. He was one of the truest and most agreeable gentlemen we ever knew, and his death is a public loss."

[He has passed from earth, but his memory will remain green, and his example and teaching will animate many to "go and do likewise."—EDITOR.]

P. O., DUTZOW, Mo., April 8th, 1870.
FRIEND HUSMANN:

You wish to receive communications from the friends of American grape culture in the different sections of this country, to "compare notes"—that is, to state their own experience on the effect of *summer pruning*, and the best mode of performing it.

I have only to remark that I am as much as yourself opposed to the "slashing" process in July and August, and no less to the "let alone" maxim; and that my own long and

successfully tried practice is in full accordance with the rules indicated by you—so much so, that if I were to be grape raising in one of the countries of the old world, I would precisely pursue the same plan, despite the universal practice there in vogue; being fully persuaded that the way of proceeding adopted by us is of general application, best suited to the nature of the vine, and insuring better success than any other.

Respectfully and friendly yours,
FREDERICK MUNCH.

EDITOR'S LETTER BOX.

MCARTHUR, Ohio, Feb. 20th, 1870.

MR. GEO. HUSMANN, Editor:

Dear Sir—I am a subscriber and reader of your valuable journal. Am engaged in the vineyard business to some extent; made last fall about 1,300 gallons of wine, about two-thirds of which is Concord, and one-third Catawba; followed the directions in your book. The Concord is very clear, and doing finely; but the Catawba was made late, and the temperature has been too low to promote fermentation, and is not entirely clear yet. I have only a common house cellar, and no good way to warm it up. I am a new beginner at wine-making, and lack experience in that business. I wish to inquire in regard to Mr. R. D'Heureuse's air treatment. If it can be applied to advantage to wine after it has gone through the first fermentation, is there any danger of acetic fermentation? I have some notion to send for an air-pump, and try the experiment on a small scale.

I will say that I bought one Concord vine about fourteen years ago at \$5.00, and it was the best investment that I ever made in my life. I presume that the progeny of that vine now will amount to more than one million. I have raised about half that many myself, besides what others raised to whom I sold vines. The original vine produced 100 pounds of grapes in 1868, and a fair crop in 1869. It is now the best vine I have, and I esteem it as the goose that laid the golden egg, though at first it caused me to be the butt of ridicule many a time; but I bore it all patiently, and trusted to fortune and diligence, and have not

been disappointed, though I have made many mistakes; yet have succeeded better than could be expected under the circumstances, for the first vineyard I ever saw I planted myself, and it was a success. My motto has been—Go ahead.

Respectfully yours,

E. P. ROTHWELL.

[We think you can do no better than leave the Catawba alone until warm weather sets in; as soon as it begins to ferment, shake up the lees well, so that they become thoroughly mixed with the wine. Rapid fermentation will then set in. Leave the bung of the cask but loosely on it, until fermentation ceases, and treat it in all respects like new must, racking it as soon as it becomes quiet and clear. You will have to wait somewhat longer, but it will be good wine in the end. Glad to hear of your success. You should take care of said "goose," and test its longevity. We have a notion that a healthy Concord vine properly cared for, will last a lifetime. You will find an article on air-treatment in this number.—EDITOR.]

ROCKINGHAM VINEYARD, SCOTT Co., IOWA, }
March 14th, 1870. }

EDITOR GRAPE CULTURIST:

I see in an article of the last February number, that you seem to be opposed to the root-pruning of the grape-vine. I take the liberty to hold a different position from you, and I will give my reasons for it. I would not advocate root-pruning because our forefathers did it; I have learned the rudiments of the art of grape-growing and wine making on my father's place, in Alsace,

and had a chance to converse with intelligent grape-growers in Lorraine and Champagne, besides having a limited experience of my own in this country. I find it is of great benefit to the grape-vine to cut off roots to the depth of six inches at the outside. I would not advise any man to root-prune an old-established vineyard, because, in that case, the vines would have very little roots left to live on. In the spring, when the ground is moist, these surface roots (which are the strongest of all on vines that have never been root-pruned) will start a very strong growth, and in the middle of the summer these roots, being in comparatively dry soil, don't do their expected share towards keeping up such growth; the consequence is weakness and disease in the leaf or fruit. Again, in the fall, when the grapes are beginning to color, these same roots, at every shower, carry too much sap to the fruit, and cause the berries to burst. Root-pruning ought to be commenced in the fall of the first season, and kept up regularly every year, to cause the lower roots to get stronger.

This article is already too long. I have never written any thing for insertion in a paper, therefore you will excuse my shortcomings; but I believe, with our poet, Boileau, in his *Art poétique*: *Ce que l'on conçoit bien s'énonce clairement, Et les mots, pour le dire, arrivent aisément.*

Yours, truly,

CHARLES SCHAEFFER.

[Our experience is contrary to yours, and we think you can no more force the roots of the Concord, or any of those varieties which root near the surface naturally, to thrive and grow strong in the cold sub-soil, than a fish will thrive if you take him out of the water. Work

the soil *deep*, and let the roots then go where they please; it is the most natural and most beneficial process. If the food they find there suits the roots, they will go down after it.—EDITOR.]

—
RIPLEY, Ohio, April 7, 1870.

GEO. HUSMANN, Esq., *Bluffton, Mo.*

Dear Sir: The GRAPE CULTURIST interests father, who has been cultivating grapes for the last 20 years, and myself very much, and we are indeed glad that you have continued the work. Be assured, it will finally succeed. Although I would not discourage the producing of healthy, robust varieties of grapes for the different latitudes and climates in which they are cultivated, yet it seems to me, that for the purpose of scientific grape growing, we should direct our attention more towards the discovery of the real causes and the histology of the diseases which now ravage among our grapes. I am fully convinced that by attention and careful microscopic and chemical experiments, combined with a rational practice in the vineyard, very much could be explained which is now a hidden mystery. I expect to give this subject some attention the coming summer, and shall report to the CULTURIST from time to time, if I find anything worth noticing. Last summer I observed that Concords which hung just under an eaves trough and the cornice of the house, were entirely healthy, while grapes on the same vine but away from the house, rotted very much. Can you explain this phenomena?

Very respectfully yours,

GEORGE BAMBACH.

[We can easily explain this. The protection of the roof kept off the rain. We have often observed similar cases, and Mr. William Saunders, Superintendent of Public Gardens at Washington, D. C., recommended boards nailed on the top of the trellis as a preventive against mildew years ago. For ourselves, we prefer varieties not subject to disease, to the doctoring of those which are diseased. We have done and seen enough of this, to satisfy us that very little can be done in that way, although no doubt many diseases arise from faulty treatment of the variety.—EDITOR.]

—
GRANT CITY, MO. MARCH 16th, 1870.

GEO. HUSMANN, Esq., *Bluffton, Mo.*

Dear Sir: As I intend putting out a small vineyard this spring, I want to get some information from you in regard to the proper distance to plant my vines. I am a reader of the GRAPE CULTURIST, besides several agricultural papers having "Vineyard Departments" among them, and there are so many different views about planting and pruning vines, that I thought I would venture to ask your opinion. My ground lies mostly to the south

and east, and I intend planting the Concord, Clinton, Delaware, Hartford and Ives principally, with, possibly, a few of some other varieties. Some say plant 6x6, some 6x8, and still others who say 12x12 and even further than that. As you are a practical vineyardist of Missouri, I would be pleased to have your opinion as to the proper distance, and also as to the best mode of training the vines, whether to stakes or trellis.

Enclosed find one dollar for which please send me Vol. I of GRAPE CULTURIST.

Please answer by mail or through GRAPE CULTURIST, and oblige,

Yours truly,

J. H. PIERCE.

[We plant all strong growing varieties, such as Concord, Herbemont, Norton etc., 6x10 feet, the vines ten feet apart in the rows, the rows six. Delaware, Creveling, Cassady, Alvey, all moderate growers, 6x6 feet.

Trellis is the best and cheapest mode of training; five feet high with three horizontal wires, of No. 12 wire. The posts may be twenty feet apart, with an intermediate stake for support.—EDITOR.]

Club Rates.

By special agreement with the publishers, we are enabled to club the GRAPE CULTURIST with the following journals, at the annexed rates:

Grape Culturist and Journal of Agriculture	\$3 00
“ “ American Entomologist	3 00
“ “ Colman's Rural World	3 00
“ “ Horticulturist	3 50
“ “ Zymotechnic News (English and German)	2 25

To those sending us the names and post office address of six subscribers, we will furnish the sixth copy *free*.

Vol. I. will still be furnished at the reduced rate of \$1, *complete*. To those who desire it bound, we will furnish it bound in muslin, with index and title page, at \$2.25, post paid; or they can be supplied with the cover at \$1.00 each.

ZYMO TECHNIC NEWS.

A Monthly Journal

For all Branches of Fermentic Arts—Manufacturing of Wine, Beer, Spirits, Vinegar and Yeast.

THE "ZYMO TECHNIC NEWS" will give a detailed record and discussion of all improvements which obtain publicity, both in the Old and New World. The more important ones of these improvements will be subjected to the most careful tests in the chemical laboratories and technic establishments, amply at the editor's disposal, and the results thus gained will also form part of the communications of the "ZYMO TECHNIC NEWS."

The "ZYMO TECHNIC NEWS" will appear both in ENGLISH and GERMAN, and the yearly subscription for each one of the two editions is but \$1 in advance.

ONLY ONE DOLLAR A YEAR!

All Business Men standing in any practical relations to Zymotechnic Pursuits, more particularly Producers of Wine, Brewers, Distillers, Rectifiers, Wine and Liquor Dealers, Vinegar and Yeast Manufacturers, ought to subscribe for a copy of the "ZYMO TECHNIC NEWS" in order to rest assured that nothing new in the technical appliances of their pursuit will escape their notice. If but once in a while a single item of interest and value to themselves has been made available, the small expense of \$1 a year will have possibly been repaid a hundred-fold in a short time.

All letters and remittances are to be directed to the undersigned

N. B.—Correspondence conducted in English, French and German.

CHAS. H. FRINGS, Editor,

202 South Fourth Street.

Jan70-tf

P. O. Box 2,742.
St. Louis, Mo., December, 189.

FENCE AND GRAPE WINE.



STAPLES, run 72 to the pound 14@15c per lb

8	.....	.....	.....	.....	.....	.....	.....	.....	7½c	“
9	4	6	“	100	“	323	“	“	.....	“
10	“	5	“	100	“	261	“	“	.....	8½c
11	“	4	“	100	“	211	“	“	.....	8½c
12	“	3	“	100	“	163	“	“	.....	9c

A large stock on hand and for sale in quantities to suit, by

R. SELLEW & CO.,

805 N. Main Street, St. Louis.

GRAPE VINES AND SMALL FRUIT,

Warranted Genuine and of Superior Quality, in Large Quantities, at Reduced Rates.

CONCORD.....	.....per 10,000.....	\$250.00	MARTHA, extra strong.....per 100.....	\$ 75.00
".....	.....per 5,000.....	125.00	CYNTHIANA, ".....per 100.....	100.00
".....	.....per 1,000.....	35.00	IVES, ".....per 1,000.....	50.00
HARTFORD PROL.....	.....per 1,000.....	45.00	".....per 100.....	6.00
".....	.....per 100.....	6.00	RULANDER, ".....per 100.....	30.00

For prices of all other Varieties, we refer to our PRICE LIST (*gratis*), and to our new ILLUSTRATED DESCRIPTIVE CATALOGUE, containing valuable information on grapes and grape culture, which will be mailed, free of postage, to any address, on receipt of 25 cents.

A GERMAN EDITION of same, by Fr. Muenich, price 25 cents (less than cost), has just been published

Please address

ISIDOR BUSH & SON, Bushberg, Jefferson Co., Mo.

GRAPE VINES!

The Bluffton Wine Company

Offer a large stock of thrifty, finely rooted GRAPE VINES of all valuable and popular varieties, together with all novelties in this line.

Large quantities of leading varieties will be furnished at a very liberal discount on list prices.

Descriptive priced Catalogues sent to any address on application to

WILLIAM WESSELHOFT, Secretary,
Bluffton, Missouri.

jan69-tf

TOBIAS WEIGOLD, COOPER, 1618 Jackson street, St. Louis, Missouri.

Offers his services to Wine Dealers, as manufacturer of all kinds of casks, fermenting vats and cellar apparatus. He guarantees satisfactory work and lowest prices. Refers to some of the principal wine dealers in the State of Missouri, for whom he has made casks and vats for a number of years, and especially to the Bluffton Wine Company, No. 22 South Main street, where casks and vats of his manufacture can be seen by those interested in the business.

feb69-tf

GRAPEWOOD TWENTY KINDS!

Immense Stock, especially of

Concord, Ives, Delaware, Hartford, Iona, Catawba, Isabella, Clinton, Rogers' Nos. 4, 15 and 19, etc.

Cut from Bearing Vines before hard freezing, and stored in frost-proof Cellars.

Very Low for Cash. Price List Gratis.

ALSO, LEADING VARIETIES OF GRAPE ROOT IN STORE.
Can ship South safely at any time.

M. H. LEWIS, Sandusky, Ohio.

feb69-tf

GRAPE WOOD

FOR

GRAFTING OR PROPAGATING.

YNTHIANA.....	\$ 5 00	per 100.....	\$35 00	per 1,000 eyes.
ERMANN.....	10 00	"	75 00	" "
ARTHA.....	3 00	"	25 00	" "
EVEREAUX.....	2 50	"		
ULANDER.....	2 50	"	20 00	" "
LOUISIANA.....	2 50	"	20 00	" "
AXATAWNEY.....	1 00	"	8 00	" "
ELEGRAPH.....	1 00	"	8 00	" "
ASSADY.....	75 cts.	"	6 00	" "
REVELING.....	75	"	6 00	" "
OETHE.....	75	"	6 00	" "
DNA.....	75	"	6 00	" "
SRAELLA.....	75	"	6 00	" "
INDLEY, (Rogers' 9).....	75	"	6 00	" "
MASSASOIT, (Rogers' 3)....	75	"	6 00	" "
MERRIMACK, (Rogers' 19)...	75	"	6 00	" "
NORTH CAROLINA SEED- LING.....	75	"	6 00	" "
ROGERS' HYBRIDS, Nos. 2, 8, 12.....	75	"	6 00	" "
ALEM.....	75	"	6 00	" "
VILDER, (Rogers' 4).....	75	"	6 00	" "
HERBEMONT CUTTINGS, 9 to 12 in., trim'd ready for plant'g	10 00	per 1,000		
DELAWARE	"	"	10 00	"
HARTFORD PROLIFIC	"	"	5 00	"
VES'	"	"	5 00	"

Cuttings will be shipped by express or freight, and an additional charge of 10 cents per 1000 for boxes and packing be added. Freight to be paid by purchaser.

WE HAVE A LIMITED QUANTITY OF

WOOD FROM BEARING VINES,

From our former Vineyards at Hermann, for Sale.

All who wish to try them, will be furnished at the above rates, by addressing
Small packages will be sent by mail, post paid.

GEORGE HUSMANN,
BLUFFTON, MO.

GREENHOUSE AND BEDDING PLANTS.

Our new Illustrated Catalogue, containing lists of Stove and Bedding Plants and Flower Seeds, Hardy Herbaceous Plants, Dahlias, Gladiolus, Lilies, and other Bulbs, is now ready, and will be mailed to all applicants. Postage prepaid. Address **MICHEL BROS. & KERN,**
mar70-tf

107 North Fifth Street, St. Louis, Mo.

THE HORTICULTURIST

AND

JOURNAL OF RURAL ART AND RURAL TASTE.

(ESTABLISHED BY A. J. DOWNING, 1846.)

Devoted to Horticulture, Landscape Gardening, Rural Architecture, Rural Embellishments, Pomology, Floriculture, and all subjects of Rural Life, Literature, Art and Taste.

HENRY T. WILLIAMS, Editor and Proprietor.

SUBSCRIPTION TERMS.—Regular Subscription, \$2.50 per annum. Monthly Numbers, 25 cents. N. B. All subscriptions strictly in advance.  To prevent loss of money through the mail, subscribers will please transmit Check, Draft, or Postal Money Order for amount. We cannot be responsible for sums sent in any other way and lost.

CLUB TERMS.

3 copies to 1 P. O. address, \$1.75 [\$2.25 each]. 10 copies to 1 P. O. address, \$17.50 [\$1.75 each].
5 " " " 10.00 [2.00 "]. 20 " " 1 " 30.00 [1.50 "].

An extra copy sent free to the former of clubs of five, ten or twenty subscribers. Illustrated Prospectus free on receipt of Postage Stamp. ADVERTISING RATES—25 cents, per agate line, each insertion. Address, HENRY T. WILLIAMS, 7 Murray street, New York, P. O. Box, 2445. The *Horticulturist* for 1869 and 1870, unbound will be supplied at \$4.50. Bound volumes for 1869, \$3.00 each.

D'HEUREUSE AIR TREATMENT.

PATENTED AUG. 6th, 1867, AND AUG. 3d 1869.

For FERMENTATION and GERMINATION, and for PRESERVING, PURIFYING and IMPROVING of Organic Substances.

Exceedingly useful in Malting, Brewing, Distilling, Baking, Manufacture of Wine, Cider, Fruit Wines, Fruit Brandies, Vinegar, etc.; in Sugar Works, Oil Works, Manufacture of Extracts, Preserves; in Storehouses, Transportation of Grain, Produce, Fruit; Purification of Water, etc., etc.

 Rights for States, Counties, Districts, or Establishments, for sale. Apply to

P. O. Box 6844.

R. D'HEUREUSE, New York.

PUBLISHED AND FOR SALE

BY

CONRAD WITTER,

ST. LOUIS, MO.

MUENCH, FREDERICK, *School for American Grape Culture*. Brief but thorough guide to the laying out of vineyards, the treatment of vines and the production of wine in North America.

MUENCH, F., *Amerikanische Weinbauschule und Weinbereitungsllehre*, etc.

Either one of these books will be mailed free of postage on receipt of one dollar. HUSMANN, GEORGE, *The Cultivation of the Native Grape and Manufacture of American Wines*.

On the receipt of \$1.50 this book will be mailed to any address.

SCHEIDT, J. A., *The Diseases of Wine*, how to prevent and how to cure them, according to the doctrines of M. Pasteur.

This book will be sent, free of postage, on receipt of \$2.

C. WITTER keeps a large assortment of books treating on the Culture of Grapes and Manufacture of Wines.

Catalogues sent on application. Please address letters,

CONRAD WITTER,

122 S. E. corner Walnut and Second Sts., St. Louis.

THE GRAPE CULTURIST.

VOL. II.

JUNE, 1870.

No. 6.

JUNE.

WORK FOR THE MONTH.

June is, with us here, eminently the *growing* month, and the vintner will have a busy time of it, a time which is especially trying to slugs and gards.

Keep the young shoots of your vines well tied to the trellis, but tie loosely, so as not to cramp the young growth and crowd the foliage. Tie always so as not to interfere with the fruit-bearing branches. This will also be the time to pinch the ends of the young canes, as described in the article on "summer pruning" in May number. The third and last stage of summer pruning will be treated in a separate article.

Keep your vineyards clean, plow and hoe frequently during *dry* weather, it is the best mulch and manure you can give your vines. Look after your grape grafts, keep them free from suckers, and well mulched with sawdust or spent tan. As soon as the graft starts into vigorous growth, keep it tied well, so that the winds cannot blow or break it off. Attend to the cutting beds, keep them clean and mellow with plow, hoe, and weeding fork. Clean and mellow soil is a requisite for success in growing any plant, but especially for the grape vine.

Stir the ground about your spring layers, taking care, however, not to disturb the young rootlets which will

be forming about this time. This will be the time for *summer layering*, which need not be attempted, however, where the vines are large enough to shade the ground. It can only be successful the first and second year after planting. For this purpose, the leading cane for layering should be left loose and trailing on the ground, and when it has grown to the desired length, pinch off the leader, so as to push the laterals into more vigorous growth. Make the ground loose and mellow, and cover the leading shoot to the depth of about one inch with mellow soil. The laterals will then take root and make good plants.

We know that summer layers have been condemned by many as worthless plants, and no doubt there are many such; but where they have air and light enough, we have had them make roots of three feet long, firm and solid, and we would as soon plant a vineyard with such layers as with the best spring layers. It matters not *how* a plant has been grown; if it has an abundance of firm, well ripened roots, it will grow and flourish. We would certainly rather have a good summer layer than a poor spring layer.

The operations of this month are mostly a continuation of the work in May, and thus but little more can be said about them.

THE EFFECTS OF THE COLD SNAP.

We were not a little amused at the "dolorous wail" in which most of our brethren of the press indulged when the frost of Easter night had killed those of the primary buds of the vine which had already expanded. We do not blame *them*, however, for reporting what those of their correspondents—who ought to have known better—saw fit to report to them. We say "ought to have known better" advisedly; for grape growers *ought to know* by this time, the grape is the most reliable of all fruits; they ought to have known that each well-developed bud on the vine is a triple one, and that when the first or primary one fails, the secondary buds will push forth, and produce at least a *fair* crop, if not an *abundant* one. They ought to have known besides, that only those varieties which push out *early*, were at all affected, while those which start later were not injured. We did not feel alarmed at all, because we know from former experience, that such calamities are not half as great as they look at first sight, and because we put our reliance, not on a single one, but on several varieties.

In our vineyards here, of which about thirty acres are in bearing, we may sum up the damage done, about as follows:

Injured to about one-fourth of the crop, we find the following varieties: Ives, Concord, Hartford, Clinton, Taylor, Marion, Blue Dyer, Franklin, Devereaux, North Carolina Seedling, and Union Village.

Not injured at all.—Norton, Cynthiana, *all* the Rogers Hybrids, Mar-

tha, Creveling, Delaware, Maxatawny, Alvey, Baxter, Rulander, Berks, Blood's Black, Cassady, Catawba, Diana, Hermann, Huntingdon, Iona, Isabella, Mary Ann, Perkins, Telegraph, and Venango. These were not advanced enough that the frost could do any harm. We hear similar reports from other portions of this State and Illinois.

As we may safely calculate that one-half of the entire area bearing this year in the West is planted in Concords, it will come near the truth if we estimate the damage at about one-eighth of the entire crop. Even allowing one-eighth more for other sections, where the damage may have been greater than here, the result would be one-fourth of the entire crop instead of nine-tenths, as many of the despondent ones calculated; and if we take into consideration the wonderfully recuperative habits of the vine, even this may be made up in the course of the season, so that our prospects of an abundant grape crop may yet be called good.

But the observant mind can draw lessons from every thing, and to such even this disaster may be productive of good for the future, so as to more than balance the momentary loss. We have learned the following, which we submit to our readers, and should like to have them add *their* lessons, as we have no doubt they have also been studying in the school of disaster.

1st. Do not place your reliance on one variety, but cultivate several, so that if one is afflicted, you will still have a crop from the other.

2d. The grape is the most reliable of all fruits, for the reason that even the secondary buds will produce a half crop if the primary ones are killed. This does not hold good alone of frosts in spring, but also of those in extremely cold winters; in the winter of 1863-1864 all the primary buds on the Concord were killed in January, yet our vines produced from the secondary buds at the rate of 4,000 lbs. per acre.

3d. Prune long in autumn; it is much easier to rub out superfluous shoots at the first summer pruning than to add what is "not there." If you have an abundance of fruit-bearing branches, you can much better afford to have them thinned by

frost than when you have hardly enough; and if the frost fails to do it, you can easily do it yourself.

4th. Choose those varieties, other qualities being equal, which start late in spring. They are the safest to depend upon.

5th. Do not believe the croakers, or your own faint spirit, at every little mishap, but rather put your trust in Him, who "tempers the wind even to the shorn lamb," and always look *forward* with a hopeful spirit instead of *backward*. The courageous hearts win the battle of life, not the desponding ones, and as the vine is clothed in green, the emblem of hope, so should those who cultivate it ever "hope for the best!"—EDITOR.

RANDOM NOTES ON GRAPE MATTERS.

FOR WHAT DO WE GROW THE GRAPE?

Why, of course, for the money to be gained thereby. That, and that alone, is the leading point inductive of application towards culture of the grape outside of the amateur's garden. From what C. W. Idell (see Feb. number) writes, when his commissions are taken out, I doubt if any man can possibly see a profit, calculating two tons to the acre, if we grow grapes to supply the wholesale market of such cities as New York. And is not New York the point from which most dealers are prone to estimate the value of whatever may come to their own market. Unfortunately it is, and being so, the producer is often injured and the market price regulated without regard to ac-

tuality. It is, therefore, that I ask, For what do we grow grapes? because, if we are to be thumbed any longer by the huckster taking advantage of us and our necessities—taking our grapes and selling them at a high retail rate and counting to us at only a nominal wholesale price, it is time we planted only of such sorts as are valuable for wine rather than for table use. The grape when made into wine, will keep for years, and for a certain length of time will gain in value more than the interest of ten per cent. on the money. The grape, if of a quality to make good wine—ranging its must say at 80° of Oeschle's scale saccharometer—it is worth, when pressed, at least eighty cents a gallon from the press, which is not less than seven cents a pound for the

fruit, and a surety, free from all express charges, second-hand commission men, and bargaining hucksters, whose return bills always have so many drawbacks, that the grower has little for his labor. It is a point, therefore, to him who is just planting to think twice ere he selects his variety, as to what and how and wherefore the money is to be obtained from his outlay of labor, time and brains.

[We agree with our correspondent in the main, though we may differ in some of the minor points. We think every grape grower, when he plants his vineyard, should seriously consider the qualities for wine of the varieties he plants, so that should the market fail him, he can make them into *wine*. With a judicious selection, and this object in view, grape growing *can not be overdone*. Every grape grower should at once, from the start, have this in view as a last resort, even if he should prefer, in good sale seasons, to market his grapes. Wine growing is not so profitable or easy as our correspondent thinks. The wine maker needs cellar room, casks, press, etc., all of which, however simple, require some means; he must wait longer for his returns, and if he counts interest, loss by racking and evaporation, etc., he will find that he will do better to sell his wine at seventy-five cents, three months after making, than at a dollar a gallon when it is fifteen months old. Moreover, he wants his cellar room, casks, etc., again, and unless he has plenty of capital at his disposal, he cannot afford to wait, especially if the market is declining constantly, as it has been the last three years. We have

a remedy for this in centralization or concentration of grape interests, which we have so long and so often advocated, and which we have put into practice here.

These thoughts are principally thrown out for the consideration of our readers. It is an important subject, and we should like to hear the views of others about it. Send them in friends, and let us discuss the matter thoroughly.—ED.]

LOOKING-GLASS VINEYARDS,
MASCOUTAH P. O., ILL., Feb. 22, 1870. }

GEO. HUSMANN, Esq., *Bluffton, Mo.*:

Dear Sir: I feel that I owe you an acknowledgment and my thanks for the good humor and friendly spirit in which you answer my rather rough vindication of Illinois as a wine producing State and of its wines. I suppose its soil in different localities varies as much in its natural composition and in the elements of fertility as that of Missouri, and even in our prairies these variations are not less remarkable than in hills and woodland, and I can see no good reason why not, in our prairies, locations might be found as much adapted to the cultivation of the grape and production of wine, as in hills and woodland. I agree with you, that on good farming land—on land on which the cereals prosper—vines should not be planted, because they succeed equally well, and even better, on land more or less unfit for other agricultural purposes. In this respect I have committed a mistake in selecting the site of my vineyard. The gentle slope on which my vines grow, can be cultivated with the plow as easily as any

other farming land, and its soil is of great fertility. Before the vineyard was planted, twenty-seven bushels of wheat and one hundred bushels of corn per acre were raised on it without extra care or labor, yet, in selecting it for a vineyard, I have not acted thoughtlessly or inconsiderately. The land was not prairie, but woodland, although it joined the former within a hundred steps, more or less. The tree tops and bushes were covered with wild grapevines of the *vestivalis* and *cordifolia* families, so that as late as 1865, on a comparatively small tract of the land, which had escaped cultivation, I gathered wild grapes enough to make 400 gallons of wine. Was it not a near and natural conclusion that the cultivated varieties of grape vines would succeed here likewise? As far back as 1850, when the location was made, I had not the advantages now enjoyed by the beginner; I had not as a guide the dearly bought experiences of others, but had to grope my own way. The soil of my vineyard is a deep rich mould, the subsoil heavy, tenacious clay, nearly impervious to water. To the latter, principally, do I attribute the many failures which in late years I have experienced in the productiveness of my vines, especially my Catawbas. But I cannot agree with you if you maintain that a better article of wine can be grown on decomposed limestone than on clay. I have no authority on hand to refer to except my own memory (and that is treacherous and may possibly deceive me), for the classification of wines according to the soil on which they grow, but according to my recollection it is about as follows:

1. Of highest excellence are the wines grown on volcanic formations.
2. On basalt.
3. On slate.
4. On calcareous soil.
5. On sand.

In the middle, between these, are the wines grown on clay; they are remarkable for strength and body, (*schwere schmalzige weine*), but rather coarse, and requiring age to attain perfection.

I may be mistaken as to the classification. You and Mr. Frings ought to be familiar with the subject, and ought to set me right in the GRAPE CULTURIST.

Yours very truly,

THEOD. ENGELMANN.

[We copy this very interesting letter, which had been intended as private, with permission of the writer, because it may serve to elucidate many interesting points. We do not believe that the soil of prairies is as well adapted to the culture of grapes as woodlands, because we think in woodlands the decaying leaves and wood accumulated there furnish a more congenial food for the grapevines than can be found in prairies. We think, also, that good farming land is none too good for the wine if *not underlaid with stiff, tenacious clay*. There, we think, is the principal cause of the trouble with the wines of our correspondent. Their *feet are wet*, as the common phrase goes.

As to the classification of wines grown on the different soils, we are not prepared to speak positively. We think that in this respect we may find quite different results with our

American wines than with the European, and think the rule will be found generally true, "that wherever a va-

riety of grapes flourishes best and remains most healthy, there will it produce the best wine."—ED.

ARKANSAS GOSSIP.

FRIEND HUSMANN:

Mourn with us. On the eve of Easter day our little vineyards and the garden trellises of our amateurs were a goodly sight. The canes had put forth plentifully of young shoots, loaded with flower bunches. The winter had been mild; the wood-growth of last year clear and healthy. The buds had opened evenly, and the young shoots had, many of them, been thinned and pinched. All was lovely; and this year, we fondly thought, was to be demonstrated to the unbelieving of our land, that grape-growing is a success. All day long a murky upper current of clouds had passed over us from the north, and at sunset an ominous streak of light appeared in the northwest. A bitter frost was the most we apprehended, and preparations were made accordingly. Tender garden plants were covered, and sheets thrown over the choicest vines. Before daylight there was a crust of frozen ground, and many of us were out with our watering pots to save the gardens. The sun arose on a glittering scene of icicles, the result of our sprinkling. It had been a regular winter freeze. The thermometer stood at 28 deg., and almost every living vegetable thing was dead! dead! dead! The profane cursed, and the humbler of our enthusiasts felt disposed to cry. It certainly was an awful scene of blasted hopes and just expectations.

Of course, in the infancy of grape-growing amongst us, the actual pecuniary loss was small. It is the *moral* damage that is most to be regretted. Our people were just waking up to the business of grape-growing, and beginning experiments. With many of them this was their first year of expected results in the way of fruit and wine. The danger is that they will become discouraged, and not only decline further planting, but neglect further attention to the vines they have. It is hard to get them all to reflect that this is a pure accident, such as may not happen again in a quarter of a century. Indeed it rarely does. I have tables of the temperature at this place of each day since 1840, with few omissions. Reviewing that, I find these April spells to have occurred only four times in all that period. All the other years were such as to have produced a fair crop of grapes. There is no country in Europe that will show a better record.

In this case, even, the loss will not be total, although it seems a miracle that any escaped. Taylor and Clinton were further advanced, and are entirely destroyed. Concord, Catawba, and others of the labrusca family, had all the first shoots killed, but a few later buds have since put forth about the lower parts of the canes, and will give us 20 per cent., perhaps, of a crop. The canes themselves in their

main length, however, remain bare and brown, and do not put forth any more. Norton's Virginia and Herbeumont vines are not materially injured. The latter, strange to say, withstands winter cold, and escapes the frosts of spring better than any other variety, notwithstanding its character for tenderness farther north. Were it not for the mildew to which it is very liable in summer, it would be first upon our list. The Delaware stood the test better than most of the others, and shows some fruit remaining, although the tender vines of two summers' growth seem killed to the ground. The Goethe, too, exhibits powers of endurance above the average. On the whole, however, your advice to our people is confirmed. For a certain wine crop we must look to Norton's Virginia and Cynthiana, and grapes of that class. For table grapes, we will, I hope, hang on longer yet to the old Catawba, and trust that and the Goethe principally. I must contend that, taking it all in all, I have never seen a better grape than the Catawba. Last season I had them three-fourths of an inch in diameter, and of most luscious flavor. True, they rot; but grapes, like ourselves, all have their failings. Perhaps our longer seasons ripen them better. I have never eaten the Catawba in Missouri, but I have in Ohio, and I am sure they are superior there.

I remember, when a young vine-grower, that Mr. Longworth one day in a conversation pooh! poohed! the idea that my vines in Tennessee would be hurt by frost. He said that they always put out from dormant buds new fruit-bearing shoots. I have since

that had much experience in frosts, and find the vines very capricious, apparently, in that respect. One year I had a most excellent crop from the secondary shoots after the first were killed. This was in Tennessee in 1858. At other times the canes have failed to put forth at all. It depends upon the severity of the frost. The crop is not necessarily lost when the first shoots are killed back to the cane. When that is simply the result of frost, properly speaking, produced by radiation from the earth, the dormant buds take the place of the others. After an actual freeze, such as we had on the morning of the 17th April, dormant buds and all are killed together. These latter spells are produced by cold settling down on us from above, which seems to permeate everything, and against which no covering is any protection, short of a covering of earth. Just now there is not one dormant bud in a thousand putting forth in the place of the dead shoots. What fruit we have will be from the later primary buds which had not burst.

I think it the curse of our climate (although not frequent) that our winters and early springs are so warm, vegetation gets such growth, that when killed by these abnormal and extraordinary April freezings, the shock is too great for recuperation. With you the vines are less advanced, I suppose, and rally more easily. However, as I said, we are but rarely exposed to it. Let us hope we will not suffer again in the next decade, when grape-growing will be too well established to suffer from it very materially.

The Scuppernong was unhurt, which will be a great triumph for those who contend that it is at all worth cultivating for wine. It is a sluggish plant in spring, and requires a long season, but seems hardy against cold. I scarcely know what to say of this nondescript, which is called a grape. It is a coarse, tough skinned berry with a sweetish, murky flavor. The vine takes care of itself. Does not require, and will not suffer pruning; bears abundantly, and has no diseases. With sugar it makes a very wholesome and palatable dry wine, which certainly would be a great blessing to our people to have in abundance; and when "tomahawked" with apple brandy (shall I confess it) is glorious to take. But that is the taste which runs on into brandy cobblers and juleps, and on the whole not to be encouraged. I scarcely think it a grape, but still a most useful fruit *sui generis*, and I hope it will be cultivated extensively by those who have no inclination for the more troublesome, and I must say, the more exqui-

site, "bunch grapes," as it is the habit of its friends to call the Herbemont, and the Delaware, and the Catawba, and others. Each to his tastes, but if you of Missouri incline to move away because you cannot grow the Scuppernong, it would be well to consider the matter carefully first.

Respectfully,

JNO. R. EAKIN.

WASHINGTON, ARK., May 1st, 1870.

[We certainly feel deeply for your misfortunes, but hope that they will not prove as heavy as they appeared at first sight, although your vines were no doubt injured worse than ours, as they were so much further advanced. We hope the dormant buds are not all killed, and that you will yet have a partial crop.

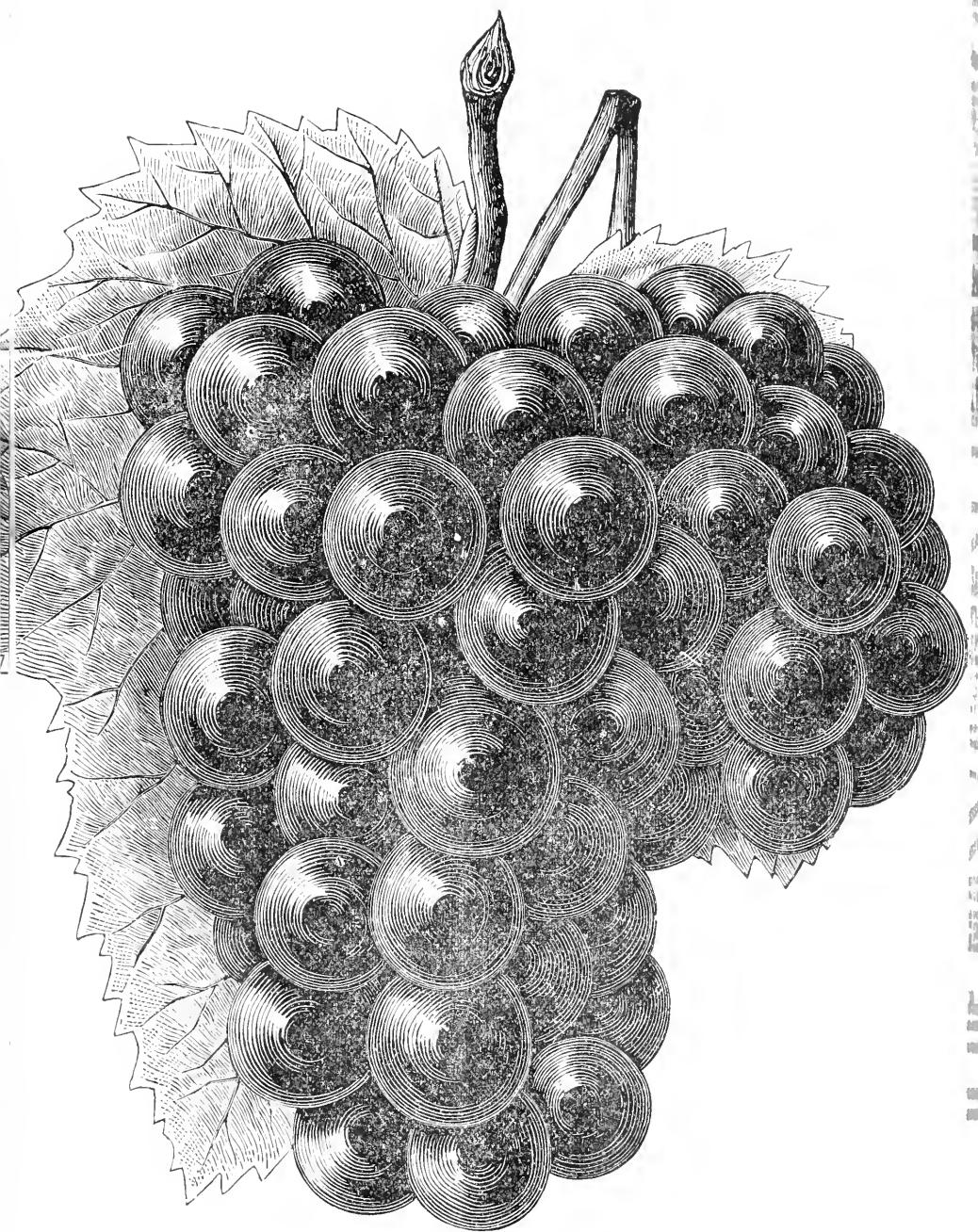
Friend Carlton, the zealous defender of the Scuppernong, has sent us another article in defense of his favorite, which will appear as soon as we have space. At present, we are content here, although we cannot grow it.—EDITOR.]

THE SALEM GRAPE.

This has been disseminated as No. 22, and also No. 53, and is claimed to be the best of the many of Roger's hybrids. It is, without a doubt, very fine in *quality*, and said to succeed finely at the East. Here, it is rather a slow grower, and somewhat subject to both mildew and rot. We have as yet rarely seen a perfect bunch of it here, and think that even at the East bunches like the engraving published by its present disseminator, Mr. Bab-

cock, will be rarely met with. We would advise its trial, but not its extensive cultivation until it has been tried.

Bunch large, shouldered, rather loose; berry large, round, brownish-red; flesh rather meaty than pulpy, juicy, sweet and delicious, with a fine aroma, fine for the table, and will, no doubt, make a fine wine, if enough of it can be obtained.



THE SALEM GRAPE.

ANNUAL MEETING OF THE MISSISSIPPI VALLEY GRAPE
GROWERS' ASSOCIATION.

(Continued.)

REPORT ON RED WINES OF 1869.

The committee to which was referred the Red Wines of last year's vintage, respectfully report having examined the same with the exception of a few bottles which were broken, and found most of the samples of very good character. It is proper to state that two members of the committee were not familiar with the use of the scale of figures in the way usually practiced by this society in grading wines, and therefore all the figures in this report range a little lower than they would otherwise have done.

One sample only of Hartford Prolific was before us, made by the Cliff Cave Wine Company, and was as good probably as that variety could be made, graded at 78 $\frac{1}{2}$. One sample of Rentz, from the same, was graded at 80, and as compared with other varieties of the class should bear a higher figure. It seems to have sufficient body, a pleasant aroma, and may yet compete successfully with the Ives for the palm.

Clinton—Two samples, excellent for that variety. No. 2, graded as 79, made at Golden Bluff Vineyard.

No. 4, graded 79 $\frac{1}{2}$, made by E. R. Mason, Webster Grove, Mo.

Mixed Wine—No. 2 (Norton and Clinton), graded 80, made by A. Engelman, Shiloh, Ills.

No. 3 (Norton, Cynthiana and Herbeumont), graded 71 $\frac{1}{2}$, made by E. A. Riehl, Alton, Ills.

Wilder, by E. A. Riehl, graded at 63 $\frac{1}{2}$. Its peculiar aroma is not admired, but it was doubtless made in too small quantity to show its capability.

Merrimack, same maker, graded at 70.

Ives, made by the Bluffton Wine Company, graded at 74.

Norton's Virginia, No. 1, made by Bluffton Wine Company, grade 76 $\frac{1}{2}$.

No. 6, by E. R. Mason, sweet, grade 80.

No. 7, by Dr. Clagett, grade 60.

No. 9, by A. Burtin, Nauvoo, Ills., grade 65.

No. 10, by G. C. Eisenmeyer, Mascoutah, grade 87 $\frac{1}{2}$.

One other sample, number lost, believed to be from Dr. Clagett, grade 85.

Concord, No. 13, by E. A. Thompson, Cincinnati, Ohio, grade 66 $\frac{1}{2}$.

No. 10, Golden Bluff Vineyard, grade 80.

No. 8, E. A. Riehl, Alton, grade 60.

No. 5, W. Krausnick, grade 61 $\frac{1}{2}$.

No. 14, Bluffton Wine Company, grade 50.

No. 12, Louis Winter, grade 63 $\frac{1}{2}$.

No. 6, Charles Braches, grade 76 $\frac{1}{2}$.

No. 7, A. Engelman, grade 71 $\frac{1}{2}$.

No. 3, J. J. Squire, De Soto, Mo., grade 77 $\frac{1}{2}$.

No. 9, F. Will, Hopewell Furnace, Mo., grade 81 $\frac{1}{2}$.

No. 10, Wm. Stark, Louisiana, Mo., not clear.

L. D. MORSE, *Chairman.*

THE PREMIUM.

The Committee on Concord Wines of 1869, which were entered for the premium of \$25, offered by Messrs. Audlow, Saylor & Co., awarded the premium to Dr. H. Clagett, of Gray's Summit, Mo. The wine would be classed as white, a rather golden brownish color, very smooth, agreeable in flavor, and remarkably well finished for new wine. It was, in fact, almost too good to admit the belief that it was purely Concord. Dr. Clagett states that it is absolutely pure juice.

There were nine samples in competition, and all excellent wine. That of Messrs. A. and F. Starr, of Alton, Ill., was also a white wine and very nearly equal to the premium wine. After deciding the premium the samples were graded as follows:

No. 1, S. H. Long, Alton, Ills., grade 80.

No. 2, Julius Mallinckrodt, Augusta, Mo., grade 75.

No. 3, Dr. H. Clagett, Gray's Summit, Mo., grade 92 $\frac{1}{2}$.

No. 4, Cliff Cave Wine Company, Mo., grade 80.

No. 5, Cliff Cave Wine Company, Mo., grade 75.

No. 6, Augusta Wine Company, Mo., grade 85.

No. 7, Bluffton Wine Company, Mo., grade 85.

No. 8, A. and F. Starr, Alton, Ills., grade 90.

No. 9, C. Paffrath, St. Louis county, Mo., grade 85.

REPORT OF COMMITTEE ON NEW WHITE WINES.

Your committee to whom the sam-

ples of new white wine were referred for examination, ask leave to report. There were presented as follows:

Catawba No. 6, Golden Bluff Vineyard, grade 82.

Catawba No. 8, Julius Mallinckrodt, Augusta, grade 78.

Catawba No. 9, Julius Mallinckrodt, Augusta, grade 77.

Mixed Catawba and Concord, Louis Winter, grade 75.

Mixed Goethe and Taylor, C. Braches, grade 65.

Hartford, Cliff Cave Wine Company, and Bluffton Wine Company, both graded 65.

Goethe, E. A. Richl, Alton, grade 62.

Iona, Dr. H. Clagett, grade 75.

Cunningham, A. Engelmann, grade 80.

Herbemont, Louis Winter, grade 87.

Delaware, Golden Bluff Vineyard, Warsaw, Ills., grade 83.

Delaware, E. A. Thompson, Cincinnati, O., grade 80.

Taylor, A. Engelmann, Shiloh, Ills., grade 80.

This last was not as good as we generally find from this grape. Your committee also note in both samples of Goethe, whether pure or mixed, a strong foxy flavor, which must detract from the value of this variety, unless it disappears with age.

Respectfully submitted,

J. M. PEARSON,
E. S. HULL,
GEO. C. EISENMAYER, } Committee.

The reports of the other committees have not come to hand. We have some notes of their grading, which we give as follows:

CATAWBA.

1868, by E. Baxter, Nauvoo, Ills., grade 83 $\frac{1}{2}$.

1866, by A. Engelman, Shiloh, Ills., grade 83.

1867, by A. Engelman, Shiloh, Ills., grade 84.

1868, by A. Engelman, Shiloh, Ills., grade 74.

1868, by Golden Bluff Vineyard, Warsaw, Ills., grade 73 $\frac{1}{2}$.

1868, by Louis Winter, grade 73 $\frac{1}{2}$.

1868, A. Burtin, Nauvoo, Ills., grade 75.

Cunningham, 1868, A. Engelman, grade 86.

Norton, 1868, E. R. Mason, grade 86 $\frac{1}{2}$.

Norton, 1868, E. R. Mason, grade 86 $\frac{1}{2}$.

Norton, 1867, A. Burtin, grade 66 $\frac{1}{2}$.

Clinton, 1868, E. Baxter, Nauvoo, Ills., grade 68 $\frac{1}{2}$.

DUTY ON IMPORTED WINES.

Dr. L. Morse, President of the Mississippi Valley Grape Growers' Association:

Your committee, to whom was referred the subject of import duties on foreign wines, beg leave to submit the following brief report, and to recommend that copies thereof be sent to the members of Congress representing the districts embraced by this Association:

Since the close of the late war, the culture of the grape in this region has extended far more rapidly than it had ever done before. The ratio of vine planting annually increased so long as the price of gold continued to be high. Under the operation of the *practically* higher duties which the cost of gold afforded, the wine interest of the Mis-

sissippi Valley was being rapidly developed, and the total consumption of wine greatly augmented.

The indirect reduction of duties caused by the decline in gold, has so far reduced the cost of foreign wines as to discourage the further planting of vineyards by the producers of American wines; and, as a consequence, the falling off in this year's planting is fifty to seventy-five per cent. below the average of the last few years.

The wine growers, as a class, cheerfully contribute to the revenues of the government; and while they are compelled to pay a much higher rate for labor (an important item in the cost of producing wines) than is paid by their European competitors; and while they pay indirect taxes on articles of consumption, such as clothing and other dry goods, groceries, implements, etc., etc., they ask only for such a distribution of the burdens of taxation, as shall give them a fair opportunity to compete with the producers of foreign wines.

Hoping and believing that our excellent paper currency will soon approximate very closely to gold in price, and thus still further virtually reduce all import duties, your committee are of opinion that to maintain the former rates of taxation, under which the grape interest was so flourishing, a re-adjustment of imposts on wines has now become necessary.

In conclusion, your committee recommend to this association the indorsement of the proposition—which they have been informed is now before the Congressional committee of ways and means—to impose a specific duty of

fifty cents per gallon on imported wines of all grades, regarding this increase as only sufficient to restore the duties on wines to what they were under the higher prices of gold, and believing that such a tax would yield a greater amount of revenue to the government, and, at the same time, afford incidental encouragement to an

important branch of American industry.

APRIL 7, 1870.

[We believe Congress has since raised the duty, irrespective of quality, to 50 cents per gallon, which will be amply sufficient for protection. We have not the space to give all the statistics in this number, some of which are very interesting.]

SUMMER PRUNING OF THE VINE—NO. 3.

After the second pinching of the fruit-bearing branches, as described in our former articles, the laterals will generally start once more, and we pinch the young growth again to one leaf, thus giving each lateral two well developed leaves. The whole course should be completed about the middle of June here, and whatever grows afterwards may be left, unless some of the laterals should still become too long and hang over into the row, when they may be taken off or shortened in.

In closing, let us glance once more at the *objects* we have in view, and whether they are really reached by the practice as followed by us.

1. One of its principal objects is to keep the vine within proper bounds, so that it is at all times under the control of the vintner, *without weakening its constitution by robbing it of a great amount of foliage*. This we trust our readers will find is fully reached by early and thorough pinching, as the fruit-bearing branches become stocky, better able to bear up their fruits, and the tendrils can not intertwine everything.

2. *Judicious thinning of the fruit*.—This is done most thoroughly, and at

a time when no vigor has been expended in its development.

3. *Developing strong, healthy foliage*.—This object we gain by forcing the growth of the laterals, and thus having two young healthy leaves opposite each bunch, which will shade the fruit and serve as conductors of sap to the fruit.

4. *Growing vigorous canes for next year's fruiting*.—We obtain just as many as we want, *and no more*, thereby making them stronger; and as every part of the vine is thus accessible to light and air, the wood will ripen better and more uniform.

5. *Destruction of noxious insects*.—As the vintner has to look over each shoot of the vine, this is done more thoroughly and systematically than by any other process.

There now you have *our* method, kind readers of the CULTURIST. If you can suggest improvements, please let us have them, for we hope to learn a good deal ourselves in our intercourse with you, and hope you will each contribute your mite of knowledge to the common fund, with that true liberality which we can not help but think should guide every one who follows our noble profession.

WINE RACKING.

[Essay read before the Nauvoo Wine Growers' Club by E. Baxter, President.]

It has often been asked, "when is the proper time to rack our wines?" I now propose to answer the question. Generally speaking, there is no very positive rule as to the time most favorable for racking. Some rack early, even when their wine is not clear; others rack late. It may be said that it is fancy which answers for a rule; yet there happens circumstances that deserve to be taken into consideration, for wine does not possess each year the same constitution. This diversity may necessitate modifications in the rackings, and vary their time.

What is that which through the operation of racking we strive to take out of the wine? The lees, that is to say, a mixture of tartar, vegetable fibers, much comminuted, of ferment, decomposed during the fermentation, of ferment still undecomposed, always in quantity in wine of bad years, and in those of coarse grapes, coloring matter, extracts, etc.; of all these substances there is none that can in any way contribute to the preservation of a wine, whilst there are some, the pure, undecomposed ferment, especially, whose action, when under favorable circumstances, is eminently able to hurt it.

Contrary to the opinion of a few popular vintners, I hold that the disturbance of wine is not alone due to the effects of temperature: *Wine feels all the motions of the vine*; it is a fact easily witnessed. Who that has not seen his wine remain quiet in June when the mercury stood at the highest, while in the latter part of July and in

August, the heat instead of increasing, often lowers quite sensibly, and wine, on the contrary, becomes deeply agitated! It is a fact which I have, time and again, observed when the seed in the berry is about being perfected. It is on these principles, and in regard to the influence the motions of the vine possess upon wine; it is also from the quality, better or worse, of this liquid; or, if preferable, from the proportion, more or less abundant, of its ferment, that we should judge of the opportunity, and of the most favorable time for racking.

DECEMBER RACKING.

When wine is surcharged with fermenting matter, lees, it is proper to rack it towards the end of December. The cold weather usual at that time, is a very favorable condition for this operation.

The importance of this racking rests in the fact that it clears wine from its coarse lees; that it prepares the racking for March, and causes it to be always more perfect; yet it should never take its place. This December racking may particularly be useful to wines coming from rich soils, to inferior wines, or to those that are made from unripe grapes, and which contain a large proportion of acids and ferment. It is a well demonstrated fact that the less sugar a wine has the more acids and ferments it contains.

MARCH RACKING.

No racking, in my opinion, is so important and deserving of careful attention as the March racking. This

operation should be done especially during dry winds; North, north-west possess the great merit of liberating the wine from its sediments.

When it is done carefully, leaving no lees to disturb the wine, it allows this liquid to bear with impunity the warm weather, and the many phases of agitation which it has to undergo from the swelling of the buds to the maturity of the grapes and to successfully come out from these numerous trials.

It is necessary then to consider this racking as absolutely indispensable; it can not too strongly be urged upon all vintners who desire to possess wines that will keep; this racking, well done, can, in a pinch, enable us to dispense with all others. The neglect of this important operation is always to be much regretted, as it often gives rise to serious disorders; it is that which particularly causes wine to sour.

RACKING INFERIOR WINES.

It should never be forgotten that such wines are, of all wines, those that most need racking. Why do we rack wine? Is it not to prevent it from becoming agitated, from souring? Then it is really the best way to guard against so serious a disorder; and under no pretext, should any one dispense with this important operation at the times I have specified as the most suitable. The constitution of such wines is so weak and so destitute of the preserving elements, that they would certainly turn, during hot weather and thunder storms, if they were not freed from the sediment they always produce in quantity. Two rackings cannot certainly be too much

to obtain this desired result. This is why I do insist upon it; there is no other wine that claims it so earnestly.

Some vintners may believe that I exaggerate. "We save our wines with but one racking, why should we practice two?" Certainly one racking in March, well done, may prevent the wine from spoiling, but I wish more, I wish to make it better; to endow it with stronger keeping qualities; and as we are handling a wine loaded with ferment, it can not be doubted but that two rackings the first year will more effectually accomplish this purpose; but, as I have said it before, to attain the desired result, the rackings must be made in clear, dry weather, and as much as possible with a north wind. It may be asked, "why should wine be racked in clear, dry weather, and with a north wind?" The difference between the north and the south wind might, on first impression, appear doubtful. South winds may be sufficiently cold and dry not to differ much from those of the north, which at times are just as damp and warm, but since the discovery of *Ozone* we can understand the difference. It is not in the heat, nor in the degree of dampness; it is, most likely, in the presence of ozone carried along with south winds from regions where electricity is ever producing it. *Ozone* is a particular kind of oxygen, discovered by Van Marum—quite active, and very damaging to animal and vegetable liquids. It can sour wines, soups, fruits, etc. This is why vintners with practical experience have long advised to choose a particular state of the atmosphere. The intention is to prevent, as far as possible, the direful

effects of this air. It happens in this way: The weather being clear, there is a perceptible evaporation on the surface of the wine racked, and this evaporation allows no real contact between the air and the wine. In cold weather the evaporation is not so strong and the consequent loss of wine is diminished; in cloudy, damp, rainy weather there would hardly be any evaporation, and the air coming in close contact with the wine might determine a dangerous alteration.

RACKING THE WINE OF GOOD YEARS.

The wines of such years, and more especially those of choice vines—and by choice, I mean such as Elsingburg, Delaware, Iona, Cynthiana, Norton, etc., in contradistinction with the coarser varieties, such as Isabella, Concord, Ives, Martha—contain much sugar. They must consequently contain a lesser quantity of lees. I feel disposed, on that account, to modify my advice in regard to these wines. Their constitution does not require two rackings the first year, like those I have mentioned before, and except in particular circumstances the March racking will be sufficient, provided it completely frees them from their deposit.

In the following rules are condensed the necessary conditions which alone can ensure a successful racking:

1. All vessels, pails, buckets, through which the racking is done, must be clean and sweet. The energy with which tartaric acid acts on metals should forbid the use of anything but wood.

2. It must be done in clear, dry weather, and, as far as possible, dur-

ing a north wind, as it is then only that the deposit of the lees can be complete.

3. Avoid this operation in damp, rainy weather, and while strong south winds prevail.

4. Never rack during a thunder storm; at such time those parts of the lees that are lightest rise through the wine, and cause a fermenting action always to be feared.

5. Never rack a turbid wine, you only prepare yourself the trouble of another racking; the sediment, in this condition, being yet mixed with the wine.

6. Nor should it be done at those times when the vine is in motion, when the buds are pushing out, when the vine is in bloom, and still less when the seed is hardening.

7. Never allow the wine to remain long exposed in contact with the air.

8. Do not let it fall from high in your bucket, as this is the surest way to fatigue a wine and to lose one of the preserving elements, the carbonic acid.

9. Finally, always use the most careful attention in freeing your wine from the smallest particles of its deposit.

Without a strict adherence to these conditions, racking is always imperfect, and does not realize the improvement one has a right to expect when the work has been well done.

[We publish the above essay, as it has given rise to considerable discussion through the press, and as it contains some good advice, in our opinion, and some with which we can not agree. We do not think even two rackings sufficient. We think that frequent rackings of the wine are es-

sential to its ripening process, and with some wines it may be necessary to rack them oftener. His advice in rule 5 we think will not hold good, as nothing will clarify a turbid wine sooner than racking it, and bringing it in contact with the air. For the same reason, we can not agree with rules 6 and 7. We generally use the rose of a watering pot in racking, if

we have a wine which is particularly obstinate. Nor can we agree with him when he says that Nortons, Cynthia, Delaware, etc., contain less lees. We know that they contain more, and therefore need frequent rackings. But we hope that the D'Henruse air treatment will obviate much of the trouble, and give us thoroughly fined wines within six months.—EDITOR.]

SPARKLING WINES.

BY ISIDOR BUSH, ST. LOUIS, MISSOURI

(Concluded.)

The carbonic gas which is compressed *between* the wine and the cork produces, by its expansion, (as soon as you cut the wire which ties the cork) that "pop" so favorably known; and the pearls thrown to the surface, the pleasant, prickling taste is nothing else but the effect of the carbonic acid which was absorbed by the wine, and now, ascending, parts from it, to be absorbed by the atmosphere. The slower this separation takes place, and the better the taste and flavor of the wine, even after such separation, the better is its quality.

Of late, sparkling wines are also made in France and Germany as well as in the United States, by a much shorter process; artificially impregnating the wine with carbonic acid, in the same manner as our imitation mineral waters are made. These wines are also very pleasant and sparkling; they are moreover not merely a harmless but quite a healthy beverage, if properly made. They can not compare, however, with real sparkling wines in which the carbonic acid has

naturally produced itself during fermentation.

Hundred thousands of cases of sparkling wine thus manufactured have been made and sold in New York City, with labels imitating Heidsieck's, Mumm's and other favorite French brands. And we owe it to the stringent regulations of the Internal Revenue system, which imposes the heavy tax of fifty cents gold on each and every bottle of "Champagne," whether imported or not, and only so labeled; while the American wine, whether sparkling or not, is free, that this fraud has ceased.

Now, this class of champagnes is sold as "California Sparkling," being generally manufactured of *California* wines which are cheaper and more alcoholic, and therefore specially adapted. And except the sparkling wines of Mr. Landsberger at San Francisco, all our present "California Sparkling Wines" are made by this new quick method.

But at the same time American enterprise has succeeded also in produ-

cing real Champagne, that is, sparkling wines made by the old French method. French and German immigrants, skilled in its manufacture, were engaged, and our American Catawbas, etc., changed into sparkling wines of high and deserved popularity. Prominent among the firms making this class of genuine sparkling wines in the United States, are Boyen & Sons, Werk & Co., and Botteler at Cincinnati (the Longworth Wine-House and its famous "Golden Wedding" have ceased to exist); the "American Wine Company" at St. Louis, Landsberger in California, and two or three companies at Hammondsport, New York, among which that of the *Pleasant Valley Wine Company* is pronounced by impartial judges and connoisseurs as fully equal to the best imported.

It would be a mistake, however, to believe that the import of foreign Champagnes has thereby decreased. The consumption of this favorite drink with the rich and luxurious American people has so much increased, that notwithstanding the annual increase of our own production its importation has also increased, as

will be seen from the following statement:

IMPORTATION OF CHAMPAGNE FROM FRANCE TO THE PORT OF NEW YORK FROM 1861 TO 1869.

Years.	Doz. bottles.	Years.	Doz. bot.
1861.....	37,720.....	1866.....	119,958
1862.....	80,808.....	1867.....	87,500
1863.....	103,487.....	1868.....	92,948
1864.....	101,565.....	1869.....	126,000
1865.....	51,636		

It may be hoped, however, that with the constant improvement of our home production in this line, our native sparkling will gradually take the place of the foreign Champagne, and millions of treasure be kept at home.

[We had the pleasure of tasting samples of sparkling wines "Carte Blanche" and "Paris Exposition," made by the Pleasant Valley Wine Co., of which Messrs. Isidor Bush & Co. are sole Agents for Missouri, and think that they deserve fully the high praise given them by connoisseurs of the article. Our own preference is for still wines, but to those who fancy the sparkling—and they are very numerous we well know—we think these native wines can be more safely recommended, than nine-tenths of the imported, and besides, they are much cheaper.—EDITOR.]

SEEDLINGS OF JAMES H. RICKETTS.

RARITAN.

Delaware crossed with Concord. Plant moderately vigorous; hardy, short-jointed; bunch medium, shouldered; berry medium, round, black, but not as dark as Concord; leaves of medium size, thick, lobed, veined or corrugated; flesh juicy and vinous; ripens about the time of Delaware,

and commences to shrivel as soon as fully ripe.

SECRETARY.

Clinton and Muscat Hamburg. Vine vigorous, hardy; bunch large, shouldered; berry large, round, very black; flesh juicy, tender, meaty, slightly vinous; foliage like Clinton, but thicker, and about the same size. A very promising table grape.

THE IMPORTANCE OF PROPER SOILS FOR CERTAIN VARIETIES OF GRAPES.

FRIEND HUSMANN:

Some time ago you advised a friend to read the GRAPE CULTURIST instead of your book, which you considered out of date, or rather say antiquated. At that time the idea struck me as something singular that a book of so recent a date as yours should at so early a day become to a certain extent worthless, yet such is getting to be my own experience, that doctrines, notions or opinions that I held and advocated a year or more ago, I now entirely repudiate. Such is the fact with American grape culture, and ever will be, at least for many years to come.

For instance, we all held out the idea that the Concord was the grape for the million, and the most suitable for general, or say universal cultivation; the latter I still admit, but not the former position. As a wine grape, the Ives will certainly supersede the Concord, and if the Goethe, Lindley, and a few others, are only one-half as good as is claimed for them, they certainly will supersede both the Concord and the Ives, because it is a white wine that we want to supply the present demand. Allow me here to remark that I have none of the above named varieties to sell, but am engaged in planting them for trial.

At our last annual meeting I spoke of the Herbemont as a valuable wine grape, which certainly it is. Its excellence as a fine and prolific wine grape is certainly beyond all controversy, but it is a wide and open question, where shall we plant it? Certainly not on level

land, not on clayey hillsides without an admixture of lime in the soil, not on overly rich land anywhere, and not much north of the latitude of St. Louis. My very promising half acre of Herbemont vineyard seven to eight years old has not only not brought me a bunch of grapes last season, but has not a cane of good ripe bearing wood, and I am now engaged in planting the same ground with Goethe. Now, while *my* Herbemont vineyard is an entire failure, many others are entirely successful, and none perhaps more so than our friend Dr. Dewey, from Keytesville, Mo.

It is evident that the most successful part of grape culture is not alone in the knowledge of how to prune and trim the vine, but also the selection of suitable locations, formations and natural compositions of mother earth before we commence setting out vineyards.

What I have said of the Herbemont is equally applicable to Delaware and Maxatawney; and so nice is this distinction, that these varieties that are a failure with me, are proving to be very valuable with some of my neighbors and friends in other parts of the county. The difficulty is easily explained when properly investigated. There is no lime in my clayey soil, while those of my successful neighbors own land which is strongly impregnated with lime, and perhaps other valuable ingredients, which so essentially contribute to perfect certain peculiar grapes, and which gives a certain fine and highly appreciated aroma

or bouquet to the wine. This thing is well understood in Europe, and we have to learn it practically here, too. I hope to see this position fully ventilated through the columns of your valuable paper. Let men of learning and experience speak out on this important subject, so that every new beginner can have the full benefit of other men's failures and misfortunes.

It is my opinion that the time is not very far off when most of our valuable wines will be named by the particular hill or hills and other peculiarities connected with it. For instance, I have made some wine this year from Norton's Virginia grapes, which were

grown on one of the sandstone hills in Jackson Co., Ills. Said wine is so unlike any other Norton's that not one man in ten will believe it to be Norton at all. There is likewise as great differences in Concord, arising from the different composition of the soil and other influences.

G. C. EISENMAYER.

[We need not say that we fully endorse the above, as we have long ago contended that no *universal* grape for this country could be found. We hope others will give us their observations on varieties, and their adaptation to soil and location.—Ed.]

* * *

D'HEUREUSE PATENT AIR TREATMENT.

FRIEND HESMANN:

I waited several months, hoping some of your wine contributors would respond to your request for results of experiments in wine making by this new process. As none of the fraternity have reported, I propose to give my experiment on *new Scuppernong wine* last November. To arrive at a clear and concise understanding of the results, I deem it necessary to give the character of the Scuppernong must. It is deficient in both sugar and acid, the former rates about 70° on the scale, the latter about four mills. The fermentation is extremely sluggish and has a natural tendency to effervesce for a year or more, and when kept from the air remains sweet, and with me has never made a dry wine.

On the 27th of October last I received from Mr. D'Heureuse an appa-

ratus of the capacity for working 100 gallon casks, for which I paid \$25. On the 28th, elevated the casks into the fermenting room and raised the temperature to 80° F. The wine was at the time one month old and very sweet. The first application was vigorously applied ten minutes, and resulted in heavy foaming, followed by regular vinous fermentation; air was regularly and moderately impelled five minutes every eight hours, the room kept at a regular temperature of 80° F. At the close of the fifth day the sugar was perfectly attenuated and a perfect dry wine obtained. The wine was drawn from the lees in three days afterwards into sweet casks, and in five days more was drawn perfectly clear and fine, and bottled for exhibition at the State Fair, where it obtained a diploma. I would state that no fining materials were used,

and that the amount of ices was much larger than I had ever before obtained from the first working of *any variety of wine*. This experiment can not be considered a full test of the merits of this process.

I propose this season to apply the air treatment to all kinds of grape and fruit juices; also to the manufacture of syrups and fruit brandies, and in due time will report results to the GRAPE CULTURIST. Hoping others interested will give their experience and by comparison arrive at definite conclusions for the satisfaction of all parties, I remain, etc.,

A. C. COOK.

COVINGTON, Ga., March 28th, 1870.

[We are very glad to hear that air treatment has resulted so favorably with you, and shall try it ourselves on a large scale next fall, as we do not doubt its applicability, and believe that it will help to obviate one of the great drawbacks to American wine making, which is the excess of gluten in their must, which can alone be removed by rapid and thorough fermentation.—EDITOR.]

BOWLING GREEN, Ky., May 5th, 1870.
Editor Grape Culturist:

Dear Sir: The fore part of September, with Mr. D'Heureuse's kind permission, I tried his "air treatment" on 43 gallons and 10 gallons sugared must, mostly Concord. I borrowed a gas-fitter's pump, added to the India rubber tube a pipe about eight inches long made of perforated tin. The must was pumped every day for a week, Thermometer 75 to 80° F., when it became clear. My partner in the vineyard, a Frenchman, says that he does not want any better wine.

I therefore say that Mr. D'Heureuse's "air treatment" is a perfect success, and he should have the thanks and patronage of the whole grape world; for if *good* wine can be made with so little care in barrel and keg, certainly in larger quantities the wine must be much better. Yours truly,

Jos. I. YOUNGLOVE.

[Thanks for your communication. We want such *facts* from all, and about every thing connected with grape growing and wine making.—EDITOR.]

THE RARITAN AND ITS WINE.

Mr. James H. Ricketts, of Newburgh, N. Y., had the kindness to send us a small vial each, of wine made from his seedlings, the Raritan, pure juice, and Delaware and Raritan, pure juice, mixed in equal proportions. Although the wine was not yet ripe, being somewhat sweet, yet it was of brilliant straw color, and the Raritan especially of very fine flavor, which must be peculiar to the grape. It promises, if healthy and hardy, to be a valuable addition to our list of wine

grapes, as the wine resembles first-class Madeira, a class of wines of which we have as yet few representatives, the only ones at all approaching it, to our knowledge, are the Hermann, and perhaps the Rulander. He had also the kindness to send us scions, and we shall soon try it on Missouri soil. The description of these seedlings (p. 158) is from the pen of Mr. Charles Downing, the distinguished pomologist, kindly furnished at our request.

EDITOR.

IMPROVEMENT OF WINES BY ELECTRICITY.

This accidental discovery is a good deal discussed now in European papers. Its advocates claim for it, that new wine can be so suddenly ripened by it, as to remain perfectly clear and still, and equal to a wine a year old. Thus new wine can be made ready for sale at once; the work of a whole years attendance, and the unavoidable waste attendant upon racking is saved, etc.

It has been calculated that it would save to France alone, the annual crop of which is 60,000,000 to 70,000,000 of hectolitres, of which the loss by evap-

oration, etc., is estimated at about 10 francs per hectolitre, the enormous loss of 600,000,000 to 700,000,000 francs annually. It is also contended that the wine has a finer taste, and keeps better than that treated in the usual manner.

Its opponents contend, that the wine treated thus, is much inferior in quality, and that the process is difficult of application.

We do not know anything practically about the process, but would like to have the subject discussed in our pages.

EDITOR.

 THE COMING MAN WILL DRINK WINE; OR, COMMON SENSE vs.
PROHIBITIVE LAWS.

Our country being without a doubt a free country, it should not be surprising that in it the most absurd ideas, the wildest theories, find sufficient encouragement to expand and grow, until the good common sense of the people allows them to die a natural death. To this unlimited freedom of action must be attributed the plainly demonstrable fact that of all countries on the face of this small sublunar revolving base-ball, ours stands pre-eminently at the head of those most earnestly, perversely and gloriously humbugged.

The fantastical idea of total abstinence, whilst one of the most absurd, has also proven one of the longest lived of our many queer notions to improve mankind, and it is to this day one of the most difficult to get rid of. It seems as if the greater the

humbug, the more stubborn the love for it, yet I was little prepared to hear that the grape men of Ohio had caught the infection and succumbed to the direful effects of this fitful epidemic. I have not seen, but have heard of their *wail—requiescat in pace!* —and of your strictures thereon, with the generous offer of the columns of the GRAPE CULTURIST for a quiet and decorous discussion of the subject, and great were my rejoicings! In the simplicity of my heart I took it for granted that the many friends of liberty and freedom, the champions of the natural rights of man, would at once respond to your courteous invitation, and I waited patiently for the irrefutable effusions of some of the ponderous minds whom a kind Providence permits to linger in our midst, for the common good, on both

sides of the question. My fond hopes have not been realized; once more am I sadly disappointed. But if great talents cannot be moved into action, why should not an infinitesimal take their place? I have heard that it is never too late to do or to say an amusing thing, and your intelligent readers may be satisfied with one of my rhapsodies. Moreover, though we may differ widely on some questions, when I find you peeping through the same glasses that I use, I cannot resist the temptation of patting you gently upon the shoulder with an "all right, my friend, go ahead and fear no danger!"

It is now many years since the love of truth, mingled with the disgust raised by so many modern critics and fanatical reformers, coupled with the obstinate conservatism of old fogies, inspired me with the idea of studying all that deserved the most to be observed in the general frame of the world—a frame sorely disfigured, I assure you—noting especially among the facts the results of laws passed to guarantee, regulate, restrict, or even deny, the natural liberties of mankind, and, had I the talent, the result of my observations, together with my personal conclusions, might form an amusing if not an instructive book. It would be no very difficult task to show that men, notwithstanding their hypocrisies and contrary appearances, have always, in reality, agreed on one point: To set the light under the bushel.

Once in my life, long ago, quite tired of seeing it there without any serious attempt being made to upset the bushel, a touch of vanity—for,

like many others, I am human—made me believe that I could undertake the feat; like so many who went before, and failed, I thought I could establish, if not a new nation, at least a new society, where men, with all freedom possible, could be at the same time the very pinks of perfection. Brothers of Icaria, do you remember?

But to possess any hopes of success, my project and scheme would have required to wear the mysterious cloak of a secret society—a Free Masonry, an Odd Fellowship, or the Good Templars, etc.; something, in two words, on a *Know Nothing* plan. Such an organization, to insure success against the common enemy, would have imperatively demanded of its members SILENCE the most absolute. This necessity was the cause that made me abandon the scheme. Silence, and least of all, secrecy, are things impossible amongst men; one can meet, any day he chooses to walk out, numbers of Morgans and Richardsons who will ask nothing better than to perjure themselves.

The question of temperance could not escape my notice, and has been viewed by me from all sides. The position you have taken upon it cannot but meet with my earnest approbation. It is true that nothing else could be expected from a faithful vintner, mindful of the worthy reputation of his ancestor, the good Noah. To help a good cause, to mitigate, if possible, the baneful results likely to follow the *punie* war—I should have said puny—which our modern Ionadabs appear eager to wage, until the end of time, against one of the most necessary natural liberties of mankind, I

will for once lay aside my usual reserve, and try, by a few bold dashes with my steel pen, to dig a few holes in the bushel. It may be that through them will pass some of the light hidden by the young Machiavels, who are ever at work to bring our liberties under the yoke of—sometimes well meaning men, I admit, but too often short sighted, crazy fanatics, for such have been, and are to this day—those classes of politico-religionists, who have deemed it a merit to deny to themselves, and enforce it by laws

upon others, every pleasure of sense, however innocent and delicate; thus it is that the worthy but mistaken tee-totalers refuse to partake of the juices of the apple, the grape, the pear, the sugar cane, etc.—and it would be exceedingly remarkable, if with their one-sided view, they could perceive that their standpoint is politically, morally and religiously false, as I shall prove hereafter.

DR. AMPELOS.

GOLDEN HILLS VINEYARD, }
NAUVOO, ILLS. }

From Zymotechnic News.

CANE AND STARCH SUGAR, AND THEIR USES IN THE MANUFACTURE OF WINE AND BEER.

Among the various kinds of sugar furnished us by the vegetable kingdom, there are two of chief importance, viz :

1. *Common or Cane Sugar*, occurring in the juice of the sugar cane, in that of several species of maple, in beets, parsnips, &c.

2. *Grape Sugar* ("Glycose") in the juice of fruit, especially of grapes, in honey, &c.

It may safely be assumed that both kinds of sugar are formed from the starch contained in the tissues; cane sugar being formed first; and then grape sugar, if acids be present. Acidulous fruits contain only grape sugar, whereas cane sugar occur in those which are free from the stronger acids.

The chemist Kirchhoff was the first to show (1811) that by treating starch with dilute sulphuric acid, a sugar could be artificially produced, which possesses all the chemical properties of grape sugar. Braconet (1819) produced the same substance by a similar treatment

of sawdust, rags, paper and analogous organic matter; and still later, Payen and Persoz effected the same transformation by action of diastase upon starch, (diastase, or rather the active substance recently isolated by Dubrunfaut, and named Maltine, is an ingredient of all sprouted grain, and is especially abundant in barley after germination.

At a suitable temperature and in the presence of water, the chemical agents just mentioned transform starch successively into dextrine, gum, and finally into sugar. This sugar is called starch sugar, dextrine sugar, and also, improperly, *grape sugar*, for the reason that, as above mentioned, its chemical composition is the same as that of grape sugar.

Starch sugar differs from cane sugar in several respects. It is less easily soluble in water, possesses a less sweet and somewhat floury taste, and twice and a half as much as starch sugar is

required to produce the same sweetening effects as cane sugar.

There is much less difference, however, in the amount of alcohol, resulting from the fermentation of these sugars. In practice it is safe to assume that five pounds of well-made starch sugar produce, when fermented, the same quantity of alcohol as four pounds of cane sugar. When, however, the

conversion of the starch into sugar has remained imperfect, the yield of alcohol is diminished in proportion to the amount of nonfermentable admixtures. Hence it is of the highest importance to use the product of such manufacturers only, as can be relied on for a pure article.

(To be continued.)

REPORTERS' FREAKS.

It is remarkable what strange things reporters sometimes make people say at public meetings. Thus, in the transactions of the Mississippi Valley Grape Growers' Association they let us say of the Telegraph that we "had found it profitable, as the demand for *white* wine is increasing," and further, "that it is of very superior quality, making the *best* of wine." What we *really* said was, "If it were desirable to increase the number of

red wine grapes when the demand for white wine was so much greater, the Telegraph should be added to that number; that it ripened at the same time with Hartford and Ives', and was a much better grape in quality, and that we thought it would make *good* wine; had tried a sample which was very good, and thought the grape very promising." Our readers will see that there is a *slight* difference.

ED.

CURIOSITIES AND GLEANINGS OF GRAPE LITERATURE.

ALTON HORTICULTURAL SOCIETY— GRAPES.

The question of "What grapes shall we plant" was again discussed.

Mr. A. Starr said: Of the newer varieties I would recommend Ives and Goethe; the latter will keep well.

Pearson—The Eumelan is universally spoken well of; but, of course, there is very little actual experience with the fruit.

Kingsbury—Only two grapes on the list that can be planted with cer-

tainty of success, viz: Concord and Ives. Goethe and Wilder are still on trial, and will, I think, be found wanting in an essential point, viz: healthfulness of foliage.

Hall—Thought Goethe stood the test well last year, and would recommend it; the unhealthy foliage was more in appearance than reality in this variety.

Hyde—Recommend Ives and Concord, and would try Goethe and Wilder.

Hilliard—I am in favor of the

Goethe; we want a late grape, not an early one. I look for the time when grapes will be kept all winter, as our apples.

A. Starr—I consider the grape the most sure and profitable of any fruit I raise; can make money raising Concord at five cents per pound.

Kingsbury—I grow no fruit that pays so well; after adding up all expenses, freight, commission, etc., they cost me four cents per pound in Chicago. I can raise two tons of Concords per acre.—*Colman's Rur. World.*

[Our friends at Alton have a very flourishing Horticultural Society, indeed, one of the liveliest in the country; and it gives us a good deal of pleasure to look over the sayings and doings of the genial lovers of horticulture there assembled. But sometimes they get an idea, as the saying is “on the brain,” and in their zealous chase after it, run it, as the hackneyed old phrase goes, “into the ground.”

Thus, we remember the time well, several years since, when they had quite a hot argument about the question, occasioned by an assertion of ours, “whether the vine had secondary buds,” or in other words, “whether the eyes on the vine were triple or single,” some strongly contesting, “that there was no such thing as a secondary bud.” We hope they have discovered them by this time, and that even the most unbelieving have been convinced of their existence by the frost of the 17th of April.

Another time they had “birds on the brain,” and a resolution was passed to exterminate the whole feathered tribe, as they were convinced that they did much more harm than good.

In consequence of this, we surmise they now have “insects on the brain” for when the birds went “by the board,” the insects clambered up on the other side, and have increased alarmingly.

Their last idea seems to be entire healthfulness of fruit and foliage in the vine, and friend Kingsbury goes so far as to say that only two varieties can be depended upon, the Ives and Concords. Goethe and Wilder will, he thinks, be found wanting in an essential point, viz: “healthfulness of foliage.”

Now we know that among some 70 varieties which we observed closely last summer, there was none which held its foliage better, and was more healthy than the Goethe. We think our friends mistake the speckled appearance of the leaf, which is characteristic of the vine, for signs of mildew, and would advise them to look twice before they run that idea “into the ground.” We hope it will not take them as long to determine this as the bud question did, and that the Goethe will be placed by them where it belongs, among the healthy varieties. It can no more help this speckled appearance than our friends can help that they are white, or their fellow-citizens “ob color” that they are black, and disease has nothing to do with it.

We would also like to know from them why the Martha, Maxatawny, Telegraph, Norton's, Cynthiana, Hermann and Hartford cannot be depended upon, and hope they will enlighten us upon the subject, as we have not, so far, been able to discover any unhealthiness in them.—Ed.]

AMERICAN VINTNERS' SONG.

BY FREDERICK MUECHL.

[Translated from the German by Mrs. Wistar.]

Plant the vine! plant the vine!—

Gen'rous font of ruby wine:

In the sunlight wildly playing,

Richly all your toil repaying,

Will the smiling clusters shine.

Eve and dawn! eve and dawn

Still must find us working on—

Digging, pruning, cutting, binding,

Round their props the tendrils winding—

Sweet the mete of labor done.

Sun and air! sun and air!

Leafy green and odors fair:

Then the berries—luscious treasure—

Fill the inmost soul with pleasure—

Leaves and fruit, and blossoms fair.

Then, at last! then, at last,

Left below, our labors past.

Let us, o'er the mountains straying,

Where the Air's mild breath is playing,

Down the vale our glances cast.

Gather in! gather in!

Let our harvest now begin:

Now, the purple juice, dark, glowing,

Full and free, in streams is flowing,

Young and old, come, gather in.

Hear it foam! hear it foam!

Surging in its narrow home,

Let it seethe and bubble rightly,

Till it sparkles clear and brightly,

Here, within its narrow home,

Now, come on! now, come on!

For our hardest task is done;

Now we pour the vines rich treasure—

Gods might envy us the pleasure—

Clink your glasses, every one.

Freedom's land! chosen land!

Where anew my home I planned:

Lo! I drink to thee, brave nation!

Comrades, join in this oblation—

Hail our chosen fatherland!

UNDERDRAINING VINEYARDS.

I do not doubt but that the tenacious clay subsoil of my vineyard, and in consequence thereof, the wet feet of my vines are the cause of the many failures, which I have experienced, and I am seriously thinking of tile-draining my vineyard, but this is an expensive experiment with but little guarantee that it will effect a cure.

Do you know of any vineyard, that has been materially benefitted by underdraining with tiles? Do not present experiences tend to show that the benefits derived from it are not in proportion to the expenses? What I have read on this subject has been very contradictory, and has failed to inspire me with confidence; of late, it has not been agitated much, but appears to sleep; if the *GRAPE CULTURIST* would revive it, and induce corres-

pondents to give their experience in the matter, it would be interesting to many of its readers. Yours very truly,

THEOD. ENGELMANN.

[We have had no experience ourselves with underdraining vineyards, as our locations have been such as did not materially need it. We know that "wet feet" for vines are about as unhealthy as for human beings, and have no doubt that some locations would be much benefitted by underdraining. We would like to see that matter thoroughly discussed in our columns, giving probable cost per acre, advantages to be gained, etc. Cannot some of our readers, who have had practical experience, give more light on the subject, than we at present seem to have. It would certainly be of benefit to many.—EDITOR.]

EDITOR'S LETTER BOX.

EL DORADO, March 15th, 1870.

GEO. HUSMANN, Esq., *Editor of Grape Culturist, St. Louis, Mo.:*

Dear Sir:—I enclose you one more article for my favorite; shall trouble you no more unless it be to give you some account of my success or failure, which I suppose you would like to know.

I read the GRAPE CULTURIST with great interest and wish it success. But think as hinted in the article, that it should embrace our whole country, and give all kinds of grapes a fair and thorough trial and then condemn.

I enclosed you \$2.00 for the GRAPE CULTURIST some three weeks back, and stated I wanted two laborers, for which I would give \$200 per year each and rations, wanted one of them to have a family, and would furnish house and garden, I prefer those having some knowledge of Farming, as they might make support when not at work in the vineyard. Should they wish to go into partnership as proposed, all right, if not, I pay them any how.

Very respectfully, J. H. CARLETON.

[We will publish your article as soon as we can find room for it, but must request you, for the sake of our readers, to be less prosy, and more to the point. You seem to think we have a personal animosity against the Scuppernong, when we have not, but from the testimony we have been able to gather, we have been forced to the conclusion, that it is only the *best now*, because no better has been sufficiently tried. We desire improvement, North and South, everywhere in the country, and this end cannot be gained by believing that we already have the best we can get. If you or any one else, can send us a sample of Scuppernong wine, made without the addition of spirits, stating at the same time how it was made, we would

much like to taste it, and can assure you, that we will give an unbiassed opinion of its quality.

We have no men at command, such as you desire, but perhaps if you, and others in the same predicament, would advertise your "wants" in the GRAPE CULTURIST, suitable men might see it, and avail themselves of the opportunity thus offered. We receive many such applications, from all parts of the country, and many of the writers seem to think it our duty to search the country for grape growers to suit them. We are always willing to oblige, as far as we are able, but ours is such a busy life, that we can neither find the time, nor can we afford it, to attend to all their wants gratis, postage, paper and time included.

If you favor us with any more communications, we would also request, that you mind your p's and q's somewhat: it is not very pleasant to be compelled to make a dot over every i, and to add a comma to every period, in a communication of six or eight pages, to make it legible or intelligible to our readers.—EDITOR.]

[We have several inquiries from correspondents about prices of wines; and, as they all touch on the same question, we will answer them together.

The price of wine is dependent upon a good many points. Among these, we will name, first of all, quality, good color, brilliancy, perfectly marketable condition, the market in which it is offered, the variety of grapes from which it was made, and the quantity sold. All these points have

more or less to do with the price obtained.

If a vintner can dispose of his entire crop for cash, as soon as the wine has become perfectly clear, thereby making room for his next crop, he had better do so, even at very moderate figures. He will find it the most paying way to dispose of it, even at one-third less than he would obtain for smaller quantities. A number of such sales have been made around Hermann this season, where vintners sold their whole crop, and the average prices for good wines, as near as we can obtain them, have been about as follows: Concord, 85 to 95 cents; Catawba, about \$1 to \$1.10; Norton's Virginia, \$1.50 to \$2 per gallon. We have lately seen it stated that thousands of gallons of *good* Concord wine were waiting for a buyer in this State, at 65 cents per gallon, but can hardly believe that the wine is very good; the producer may think it so, for every father loves his own children, and we have seldom seen a wine-grower, who had not a high opinion of his own wine, but the buyer may think differently, as he is more apt to be impartial. We think that the general duty of 50 cts. per gallon on imported wines will have a tendency to enliven the demand, and increase the price of our native wines, and if all will try and make their next crop as good as possible, they will have no trouble in disposing of it. We will try and do our share in teaching them how to do this in our next three numbers, and are happy to inform them, that we find no difficulty in disposing of our wines made here, at remunerative figures. We are selling our Concord at \$1 to \$1.10,

Norton's \$2, Clinton at \$1.50 per gal., in quantities of not less than one barrel.

White and light colored wines seem to be in much greater demand, than dark red, much of the Concord made is now white or light colored, and although to our taste it is not equal to the best red Concord, yet it seems to be in greater demand, and sells better than the latter. Yet the Concord is not a proper white wine grape and we must try and cultivate more of varieties, which in themselves possess no coloring matter. Such we have in the Martha, Goethe and Maxatawny, and as they seem to be adapted to most locations, we would advise more extensive planting of them.

To those who may wish to dispose of their wines, we would advise to follow the annexed rules.

Always try to get the buyer to test the wine in the cellar, from the casks, instead of offering samples abroad. The change of temperature, motion, etc. makes even the best samples taste flat.

If this cannot be done, see that the samples, when sent, have had a rest of a day or two in a cool cellar, before they are tried.

Never offer your wine for sale, unless perfectly bright, clear and still. No wine, however good intrinsically, can be properly tested, nor justice done to it, as long as any lees are suspended in it, or fermentation, however slight, is still going on.

Do not carry or send your samples in medicine vials, or brandy bottles, but in handsome wine bottles, and well corked with new corks of the best material. Appearances sometimes have a great influence, and but few are above them in the daily trade of life.—ED.]

Club Rates.

By special agreement with the publishers, we are enabled to club the GRAPE CULTURIST with the following journals, at the annexed rates:

Grape Culturist and Journal of Agriculture..	\$3 00
" " American Entomologist and Botanist.....	3 00
" " Colman's Rural World.....	3 00
" " Horticultrist	3 50
" " Zymotechnic News (English and German).....	2 25

To those sending us the names and post office address of six subscribers, we will furnish the sixth copy *free*.

Vol. I. will still be furnished at the reduced rate of \$1, *complete*. To those who desire it bound, we will furnish it bound in muslin, with index and title page, at \$2.25, post paid; or they can be supplied with the cover at \$1.00 each.

Cash Advertising Terms for 1870.

TWENTY CENTS PER LINE, AGATE TYPE, EACH INSERTION.

Cover Pages Twenty-Five Cents per Line.

BUSINESS CARDS, FIVE TO SIX LINES EACH, \$15 PER ANNUM.

HAVE YOU GOT MARTHA?

GRAPE VINES AND SMALL FRUITS.

[Nursery Established in 1857.]

A splendid stock of Vines and Plants are offered the coming Fall and Spring, including nearly every variety known to be of value. The popular and white Grape

MARTHA, OR (WHITE CONCORD,)

In large or small quantities. Also, Arnold's new Hybrids, Eumelan, Walter, Weehawken, Christine, Hine, and all valuable numbers of Rogers' Hybrids; also, Delaware, Iona, Israella, Concord, Hartford, Ives, Norton's Virginia, etc., etc., in all about one hundred distinct varieties.

Kittatinny Blackberries and Clarke Raspberries in large quantities, Jucunda and Charles Downing Strawberries, Downing's Seedling Gooseberries, Cherry, Versailles, White Grape, and Black Naples Currants, etc., etc.

Send stamps for Illustrated Catalogue and Price Lists to

april 69-ff

GEO. W. CAMPBELL, Delaware, Ohio.

D'HEUREUSE AIR TREATMENT.

PATENTED AUG. 6th, 1867, AND AUG. 3d 1869.

For FERMENTATION and GERMINATION, and for PRESERVING, PURIFYING and IMPROVING of Organic Substances.

Exceedingly useful in Malting, Brewing, Distilling, Baking, Manufacture of Wine, Cider, Fruit Wines, Fruit Brandies, Vinegar, etc.; in Sugar Works, Oil Works, Manufacture of Extracts, Preserves; in Storehouses, Transportation of Grain, Produce, Fruit; Purification of Water, etc., etc.

 Rights for States, Counties, Districts, or Establishments, for sale. Apply to

P. O. Box 6844.

R. D'HEUREUSE, New York.

ZYMO TECHNIC NEWS.

A Monthly Journal

For all Branches of Fermentic Arts—Manufacturing of Wine, Beer, Spirits, Vinegar and Yeast.

THE "ZYMO TECHNIC NEWS" will give a detailed record and discussion of all improvements which obtain publicity, both in the Old and New World. The more important ones of these improvements will be subjected to the most careful tests in the chemical laboratories and technic establishments, amply at the editor's disposal, and the results thus gained will also form part of the communications of the "ZYMO TECHNIC NEWS."

The "ZYMO TECHNIC NEWS" will appear both in ENGLISH and GERMAN, and the yearly subscription for each one of the two editions is but \$1 in advance.

ONLY ONE DOLLAR A YEAR!

All Business Men standing in any practical relations to Zymotechnic Pursuits, more particularly Producers of Wine, Brewers, Distillers, Rectifiers, Wine and Liquor Dealers, Vinegar and Yeast Manufacturers, ought to subscribe for a copy of the "ZYMO TECHNIC NEWS" in order to rest assured that nothing new in the technical appliances of their pursuit will escape their notice. If but once in a while a single item of interest and value to themselves has been made available, the small expense of \$1 a year will have possibly been repaid a hundred-fold in a short time.

All letters and remittances are to be directed to the undersigned.

N. B. Correspondence conducted in English, French and German.

CHAS. H. FRINGS, Editor,

P. O. Box 2,742.

202 South Fourth Street.

jan70-tf

ST. LOUIS, Mo., December, 1839.

GRAPE VINES AND SMALL FRUIT,

Warranted Genuine and of Superior Quality, in Large Quantities, at Reduced Rates.

CONCORD.....	per 10,000.....	\$250.00	MARTHA, extra strong.....	per 100.....	\$ 75.00
".....	per 5,000.....	125.00	CYNTHIANA, "	per 100.....	100.00
".....	per 1,000.....	35.00	IVES, "	per 1,000.....	50.00
HARTFORD PROL.....	per 1,000.....	45.00	".....	per 100.....	6.00
".....	per 100.....	6.00	RULANDER, "	per 100.....	30.00

For prices of all other Varieties, we refer to our PRICE LIST (*gratis*), and to our new ILLUSTRATED DESCRIPTIVE CATALOGUE, containing valuable information on grapes and grape culture, which will be mailed, free of postage, to any address, on receipt of 25 cents.

A GERMAN EDITION of same, by Fr. Muench, price 25 cents (less than cost), has just been published

Please address

ISIDOR BUSH & SON, Bushberg, Jefferson Co., Mo.

GRAPEWOOD

TWENTY KINDS!

Immense Stock, especially of

Concord, Ives, Delaware, Hartford, Iona, Catawba, Isabella, Clinton, Rogers' Nos. 4, 15 and 19, etc.

Cut from Bearing Vines before hard freezing, and stored in frost-proof Cellars.

Very Low for Cash. Price List Gratis.

ALSO, LEADING VARIETIES OF GRAPE ROOT IN STORE.

Can ship South safely at any time.

M. H. LEWIS, Sandusky, Ohio.

feb69-tf

Missouri Wines and Plants.

THE BLUFFTON WINE COMPANY

NOW offers to the trade, and to the public generally, its first crop of wines, grown at Bluffton, comprising, of red wines, Concord, Norton's Virginia, Ives, and Clinton; of white wines, Concord, Catawba, Hartford, Delaware, and Herbeumont.

Our wines are of excellent quality, and we are sure that they will give general satisfaction to consumers. Our motto is, "Low prices, good quality, and quick sales;" and Wholesale Dealers in wines will find it in their interest to apply to us. Price lists sent on application.

We also call the attention of Grape Growers to our large and complete stock of plants of all the leading varieties. We shall make it our aim, in our fall trade, to supply our customers with the best of plants, and at as low rates as any reliable firm.

Descriptive Catalogues sent, on application to

M. WESSELHOFT, Secretary,
BLUFFTON, MO.

PUBLISHED AND FOR SALE

BY

CONRAD WITTER,
ST. LOUIS, MO.

MUENCH, FREDERICK, *School for American Grape Culture.* Brief but thorough guide to the laying out of vineyards, the treatment of vines and the production of wine in North America.

MUENCH, F., *Amerikanische Weinbauschule und Weinbereitungsllehre, etc.*

Either one of these books will be mailed free of postage on receipt of one dollar.

HUSMANN, GEORGE, *The Cultivation of the Native Grape and Manufacture of American Wines.*

On the receipt of \$1.50 this book will be mailed to any address.

SCHEIBL, J. A., *The Diseases of Wine,* how to prevent and how to cure them, according to the doctrines of M. Pasteur.

This book will be sent, free of postage, on receipt of \$2.

C. WITTER keeps a large assortment of books treating on the Culture of Grapes and Manufacture of Wines.

Catalogues sent on application. Please address letters,

CONRAD WITTER,

122 S. E. corner Walnut and Second Sts., St. Louis

CHOICE VARIETIES OF
Grape Vines, Strawberry Plants, Raspberry, Blackberry & Gooseberry.

Also, a few Peach and Cherry Trees, the finest growths. Particular attention will be paid to small orders of plants to be sent by mail. For sale by

SAMUEL MILLER, Bluffton, Mo.

GREENHOUSE AND BEDDING PLANTS.

Our new Illustrated Catalogue, containing lists of Stove and Bedding Plants and Flower Seeds, Hardy Herbaceous Plants, Dahlias, Gladiolus, Lilies, and other Bulbs, is now ready, and will be mailed to all applicants. Postage prepaid. Address

MICHEL BROS. & KERN,
107 North Fifth Street, St. Louis, Mo.

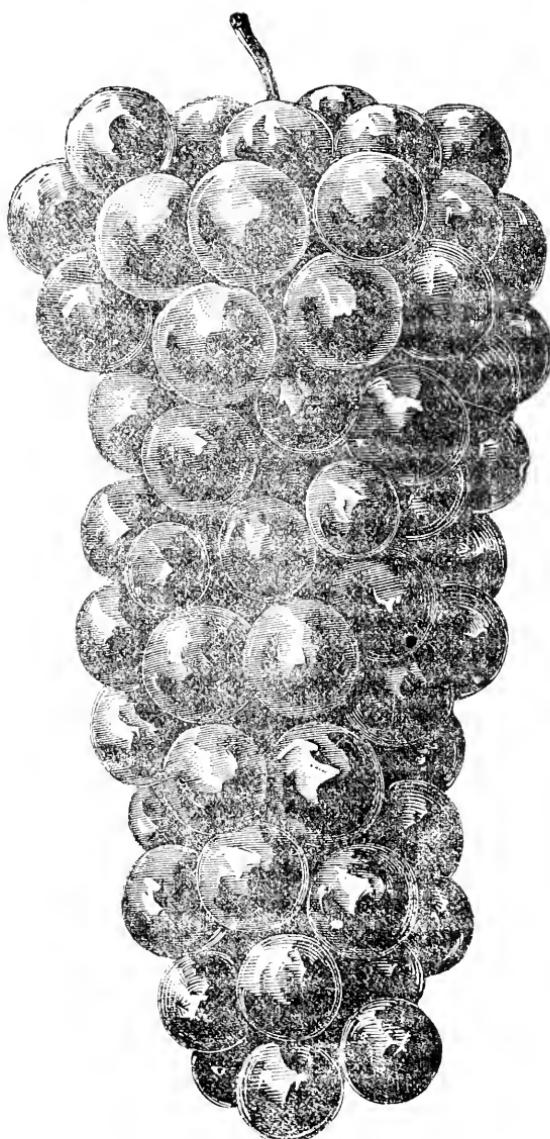
mar70-tf

THE
GRAPE CULTURIST.

VOL. II.

JULY, 1870.

No. 7.



THE IVES.

THE IVES GRAPE.

SYNOMYS.—*Ives' Seedling*, *Ives' Madeira*, *Kittredge*.

This is not a *new* grape, but as its merits and demerits have been so often discussed lately, we think it may be interesting to our readers to have a summary of them, and also an illustration and description. An accidental seedling of Henry Ives, near Cincinnati, Ohio, very likely from seed of Hartford Prolific, which it very closely resembles in foliage and fruit. Bunch full, medium, compact, not generally shoulered; berry medium, oval, black, sweet and pulpy; only moderately juicy; somewhat foxy, but not as much so as Hartford; colors about as early as Hartford, but adheres firmly to the stem. Vine—a rampant grower; very productive after the third year; but little subject to disease of any kind; one of our most healthy and robust varieties, and propagates freely from cuttings in open ground.

As we have fruited the grape for several years, and made wine from it, and as we still think that it has been excessively praised, although we have a better opinion *now* of its wine-making qualities than we had after tasting only the samples made in Ohio, we will try to sum up its good qualities as well as its faults impartially, and leave our readers to judge which predominate.

Its merits are: Easy propagation; adaptability to almost any soil; robust and healthy growth of fruit and foliage; productiveness after its third year; fair keeping qualities of the fruit, which may also be used as an early market grape, as it colors as early as Hartford. We may add to this, that

it will, under proper treatment, make a wine which, in color and body, holds about the middle between Concord and Norton, with a more agreeable bouquet than either of these.

Its faults are: Its too rampant growth, which makes it difficult to manage in the vineyard; its inferior quality as a table grape, (much inferior to the Concord, although it may keep better); its early starting in spring, which subjects it to late spring frosts, and the tough thick pulp and skin of the berry. It is by no means a refined grape, but one of the roughest and wildest of all of our native. How Mr. Ives could ever suppose it to be a seedling of an European grape, we are unable to comprehend, as it has "*Latrused*" written on every fibre and particle of leaf, wood, and fruit. Its must contains even less sugar than the Concord, and the stories told by our Cincinnati friends—that it would make a very heavy wine without addition of sugar—cannot “go down” with any one who has had the handling of its must for several years. But, take it all and all, we think its good qualities predominate, and that it may safely be recommended for general culture in the West as a reliable grape, making, under proper treatment, a red wine of good quality, which can be produced cheaply. But we warn our readers that they cannot make a *white* wine of it by any manipulation, a rather serious drawback, when the demand for white wines seem so much more active than for red, and we do not think that it

can compete in *quality* with Creveling, Telegraph, and Norton's, much less with that best of our native red wines,

the Cynthiana, and must, therefore, only hold second rank as a cheap wine for the masses.

JULY.

WORK FOR THE MONTH.

If the vintner has been diligent in pinching and summer pruning, but little will be left for him to do in that respect, except now and then to shorten an unruly branch which may hang too far into the row. Keep the young canes neatly tied to the trellis; where a bearing branch becomes too heavy and threatens to break down, it should also be tied lightly. The young canes will now have reached the top of the trellis, even where pinched, and they and their laterals should now be led along the upper wire, to form a leafy canopy above the fruit, which should be, if properly trained, mostly on the second wire. In all cases tie loosely; it will not do to cramp the foliage.

Should the weather be dry, plow and hoe frequently, so as to keep the soil loose and mellow. Never allow the weeds to get ahead of you, if you can help it, but keep ahead of them, by frequent hoeing and plowing. But if the weather should be wet, do not work the ground under *any* condition. It is the worst thing you can do.

Look after your grape grafts; many of them may start only now, and as

long as the scion is fresh and green there is hope. Take away the suckers from the roots, taking care not to disturb the scion. Keep your cutting beds clean and mellow; this is their principal growing month, and they will need good attention.

Look out for the grape vine Fidia (described in May number, page 153). An apparatus, somewhat in the shape of Dr. Hull's Curculio Catcher, will be found useful in destroying them. It consists of a piece of canvas stretched over a light wooden frame, in the shape of an inverted umbrella. By holding it under the vine early in the morning and giving the trellis a slight jar, they will tumble down into it, and can then be easily destroyed when they are yet in a torpid state.

Summer layering may still be continued, if the weather is not too dry. See June number, about *modus operandi*.

This will be an excellent time for digging cellars where needed. As this is an important subject, we shall try and give our views about the best and most economical arrangements of them in a separate article.

THE SCUPPERNONG AGAIN.

EDITOR GRAPE CULTURIST:

In your comment (Feb. number) on my reply, you say "I gather from your article that you put $1\frac{1}{4}$ pounds of sugar to the gallon of Scuppernong must" &c. That is what I said. "That $1\frac{1}{4}$ pound sugar to the gallon of water raises it to 50° Oechsle's scale, that the Normal average of Catawba must is 80° and that if Scuppernong must averages 80° , my $1\frac{1}{4}$ pound sugar made a must of 130° ." In this I think you are very near correct, for it had great body, and by most palates it was pronounced sweet.

You very correctly say that 2 pounds of sugar to the gallon of must makes a cordial. Last fall I added various quantities from 2 pounds to none. That with 2 pounds is literally a cordial. That with none fermented well. Seems now of fair body. "Scents" well, but is too sour for mine and most other tastes.

Now I do not claim perfection for the Scuppernong as a wine grape even here. Nor do I expect nor even wish to convince you, that it will pay so far North. But if we have in it a grape whose must averages 80° Oechsle's scale, the normal average of the Catawba—and a grape free from disease, a certain annual crop; one that requires little labor and skill in cultivation, (by reason of which one hand can attend to as much as three with you) and last though not least, an aroma, the most refined and delicate—we have cause to be proud of it.

The Byington plan of cultivating the bunch grape is in part the plan on which we have always cultivated the

Scuppernong. Thus 30 by 30, or 32 by 32 feet, and cultivating the spaces in peas, potatoes or cotton until the vines and scaffolding pretty well cover the ground. I suggested in the February number, without having seen the Byington plan, that we might obtain a large crop much earlier from the ground, by planting 15 by 15 or 12 by 15 feet, and thinning out as they spread.

We novices admit you to be a great teacher in the art, and permit you to even use the rod in proper cases; but we rebels and perhaps friend Engelmann, think you a little too dictatorial at times—too much of the *Ego et Dominus*!

I am not offended in the least, and would not offend for any thing, but it seems to me that your attack on the Scuppernong grape is hardly fair or candid. You do not pretend to have ever seen or tested Scuppernong must in your life. Nor to have tasted the fruit but once, and that you say you raised, which must have been at Hermann, too far North. Then I regret that you were very unfortunate yourself and the grape equally so, that you got a bug in your mouth with them. Your style of attack may mislead grape Culturists of the North, who are unfortunate in two respects, first in never having tasted a perfectly matured Scuppernong as grown in its native South; and second, after having well filled their mouths with luscious Raspberries or Strawberries, discover they have a bug involved also. But to those who have tasted it in its perfection your attack will only produce

smile at your unfortunate predication.

I did not pretend to be any thing at a mere experimenter in wine making, or to have any *scientific* information about it. I acknowledge the justice of your castigation. But if my punishment is merited, what should be inflicted on one who was scientific, had all the appliances &c., who after long years of experience should place so much sugar in his Catawba, exhibited at the Mississippi Valley Grape Grower's Society, so late as 1867, that it was condemned as too sweet, and in the "scientific" application of the rule discovered 126°! Pray how much did that lack of 1½ pound to the gallon. It seems his second best contained 15° of sugar, as it averaged 15°. "*A little too much of a good thing.*" February number *Vine Culturist*, 45 and 46.)

I must dissent from your logic on this. You say "the taste for the so-called sweet wines or cordials is a natural transition from the use of ardent spirits." "That there is more ardent spirits drank in the North than the South." Had you said "the taste for strong wines is a natural transition from the use of ardent spirits," I could see the relation. If the use of ardent spirits engenders the love for sweet wines, and there is more ardent spirits used North than South, the conclusion is inevitable that the people of the North have a greater love for sweet than sour wines. (?) When you say that a cultivated taste readily accustoms itself to true wines, I say yes, and so may a cultivated taste readily accustom itself

to the use of sour wines, lager beer, sour krout or tobacco, but I deny that the love of these is a natural taste. Nature has made the milk of all the Mammalia tribes sweet, and the young of all these tribes love sweet, and reject sour things, hence I infer that moderately sweet, such as this milk, is the only natural taste, and as I stated in the outset, all others are creatures of cultivation, and as much sense in one as the other.

I said the people of France luxuriated in Champagne, that is, drank it as a luxury, not that the people of France drank Champagne altogether. The lower and poorer class in France are compelled by their poverty, not their love, to drink not only sour, but the lowest grades of wine, Gallized, and Chaptalized at that, as the lower class in North Carolina (I came from there) drink persimmon beer, and further South sweet potato beer. Champagne and the other higher grades of wine are used only by the wealthy, whether drank in Europe or America. I flatter myself that I have vindicated our pet in the eyes of *myself* at least, and of my Southern friends, whether in yours or not. I assure you, this latter conviction is very much desired. If you cannot yield in this, concede at least, that there *may be some* good sense among every people, and that Dame Nature may not be wholly unkind to any land.

Come South next September, and I will gather you some Scuppernongs without a *bug*, and give you of my little store of wine, from two pounds of sugar to none.

With the best wishes for the success of the Grape Culturist, Bluffton, yourself, and the Scuppernong.

I remain yours,

JOHN H. CARLETON.

ELDORADO, ARK., March 15, 1870.

[We would not have given room to the above, which is of almost too rambling a nature for our pages, were it not that our friend considers himself ill treated by us (castigated, as he elegantly expresses himself) and seems to think he has been very severe upon us. We make it a rule to publish every thing from our correspondents, which is intended as an attack or censure of our course, although we do not publish one tenth of the letters expressing approbation of it. We wish to give every one a fair chance in our columns, and give them leave to use *us* as unceremoniously as they desire, whilst we intend to exclude every thing personal against any of our correspondents. This is our apology to the majority of our readers for the admission of the article. And now a few comments on the article itself.

Friend Carleton seems to take it for granted, that the Scuppernong must will have a normal weight of 80°. According to statement of A. C. Cook, from Georgia, "it is deficient both in sugar and acid, as it rates at about 10° of the first, 4 per mille of the latter," just as we had supposed. It seems also to be sluggish in fermentation. So much for friend Carleton's "Divine gift."

He thinks the aroma *delicate*. He is of course at liberty to do so, and we do not wish to dictate to him or any body else, but he must also not

try to dictate to us, and to the thousands of others whose taste and definition of the term may differ from him. We claim to live in a free country, and to have a right to our opinion also. We do not dictate to any one; we have not attacked the Scuppernong as far as we know, only we do not think it *perfection*, and still advise our Southern friends to try and find something better. If friend Carleton thinks he has reached perfection, well and good; we wish him joy of his happy illusion. If it does him good to pity Northern grape growers, because they have never tasted his model of perfection, why, it is a cheap pleasure, which we, for one, would not begrudge him.

We did not intend to "castigate" him, nor do we know what he means by his remarks about the exhibition of Mississippi Valley Grape Growers' Association, and the Catawba exhibited there. We are not aware that there was any Catawba exhibited there, which contained free sugar. But when he goes so far as to hint that the saccharometer could be applied to wine already a year old, and fermented, and confounds *Oechsle's must scale* with the imaginary scale of taste of a wine committee, he shows that he has not even mastered the A B C of wine making, and does not know what he is talking about. For his edification we will inform him, however, what both of these scales mean, and how they are used. The saccharometer or must scale is used to determine the specific gravity of must, and can only be used correctly before fermentation of any kind sets in. The amount of alcohol in ferment-

ted wine is determined by the so-called *wine scale*, which generally ranges from one to twelve, and can only be used accurately when *all* the sugar contained in the must or wine has been changed into alcohol by fermentation. But it has become customary among wine committees to judge wine by an imaginary scale of one hundred, one hundred being the best of that variety, or *perfection*, and all which they rate below 50° is ranged out. This *imaginary scale*, friend Carleton seems to have confounded with *Oechsle's must scale*.

As to the matter of taste, it is an old adage "De gustibus non est disputandum," which translated into plain English means "It is useless to dispute about taste." Therefore he is certainly at liberty to prefer sweet, strong wines, but will he please also allow us to prefer what we like best? We do not envy his taste, and expect

the same charity toward ours. We have been taught early, that among every people, whoever fears God, and does right, is pleasant in His sight. We think that good sense is about evenly distributed among the nations of the Earth, and the only time we thought it had to a certain extent left the people of the South, was during the last civil war. But all that lies behind us, thank God; we are fast friends again with the majority of our former enemies, and hope to remain so. Especially our Southern brethren have warmly welcomed the Grape Culturist, and we hope to pay them back in the coin of friendly feeling and advice, as far as we are able.

Thanks for your invitation, friend Carleton. If we can not avail ourselves of it at present, we may inflict a visit upon you some time, and you may be sure, that we shall try and do your wines full justice. [Editor.]

CALIFORNIA WINES.

The San Francisco *Commercial Herald* has the following:

The local trade in our Native Wines has partaken of the general dullness that has attended all other branches of business during the last twelve months. It has, however, been a growing interest, the improved quality of many vintner's products, through the use of foreign varieties of grapes, having been most marked, and done much to overcome the unjust prejudice which has heretofore obtained among our own people. The export trade for the last three months has been unusually important, greater quantities of

Wines having been shipped by sea than in the same period before, as has also been the case by rail overland. As a rule, shipments have been made on a legitimate basis of orders, which have been caused by the increased favor which sound California Wines have attained in the Atlantic States. This increased favor, we feel satisfied, will be continued when the late shipments are received in the New York and other markets, the quality of the Wines shipped being, on the average, better than any before known. Among the prominent shippers from this port we note the following: Lake

Vineyard Wine Company, which has shipped by sea, via Cape Horn, 11,703 gallons Port; 615 do. Angelica; 6,146 do. White Wine; 13,831, do. Claret; 2,869 do. Sherry, and 1,266 do. Brandy; all which goes to their house [Messrs. Morrow, Chamberlin & Co], in New York. The Lake Vineyard Wine Company also report large orders now on hand, which will be shipped as soon as circumstances will admit. Messrs. Keller & Co. have shipped by sea about 3,000 gallons Sherry, and also by overland quite a number of small orders of considerable aggregate importance. Landsberger & Co. have shipped via rail, steamer and sail vessels to the Atlantic States, during the last months, 388 cases assorted Wines—180 gallons Champagne—3 barrels Brandy—55 pipes White and Red Wine, and 46 barrels Wines, assorted. G. Groezinger has shipped, by steamer and sailing vessels, since January first, about 15,000 gallons assorted Wines, and 10,000 do. by rail, overland. The United Anaheim Wine Grower's Asso-

ciation have in the same time, shipped about 19,000 gallons Wine, mostly Red and White; while Elberhard & Lachman have shipped considerable quantities, the aggregate of which is not known. Considerable quantities of Wine have been shipped overland by Wine-growers of the foot-hills of the interior, via Sacramento and other points, without coming to this city. The ship James R. Keeler, now loading for New York, is reported to have about 600 tuns Wine already on board, and additional lots still to be shipped. We aggregate the total shipments for the first quarter of the present year via sea and rail, at not less than 300,000 gallons, and, from present indications, the shipment for the quarter ending July 1st promise to exceed that amount. So far the vintage of 1869 remains in the hands of growers, the quality, on the whole promising to be superior to preceding vintages. The bulk of the Wine shipped has been of the vintage of 1868, although large quantities of the 1867 Wines have also been forwarded.

—————♦♦♦—————

COMMON SENSE *vs.* PROHIBITORY LAWS; OR, THE COMING MAN WILL DRINK WINE.—II.

The submission of a free people to the executive authority of their local or State government, is no more, I take it, than a compliance with laws which they themselves have enacted; and, while justice is impartially administered, the submission of the people should be voluntary, cheerful, and I might almost say unlimited. If a law is obnoxious, or invades their natural rights, the remedy rests in their own

hands; the ballot box is the potent friend that should redress all wrongs. But as an election is often carried by surprise, and the ignorance of the masses on a particular point—as laws are now and then enacted through the same causes—it is necessary that important questions should be kept constantly before the public and thoroughly examined, in order that more light may follow.

A fine and useful talent is that of being able to discover and unravel the truth which most men attempt to conceal. This being no doubt your own sentiment, let us try to instruct ourselves; and while doing so, let us endeavor not to scandalize the weak minded and the ignorant, a most difficult task, even in a free country, when one wishes to speak the truth.

The worth of a government and of its institutions exist in the protection given, in restricting or maintaining within due bounds, in encouraging and fostering all possible industries, trades and professions capable of adding to the revenues of the country, or to the wealth and comfort of the inhabitants—nor can a government be good if the laws that it enacts are not in keeping with the rational liberties of mankind, and of an enlightened reason. That reason teaches us that certain excesses and evils, when not clashing with a general public opinion, or in direct opposition with public interests, or peace, should be to a certain extent winked at, especially when well aware of the great truth—that public opinion changes in due proportion to the light spread.

Temperance, as understood now-a-days is, as we all know, a most admirable invention, and quite christian in its results, as it gives at times position and standing to a certain politico-religious party, while it can and does greatly add to the number of hypocrites in the nation. Some day when I have more leisure I shall advocate a marble statue to its inventor; the “might have been” and the redeemed drunkards should be earnestly thank-

ful, and I trust will then subscribe liberally.

The first time that this question of Temperance was forcibly brought to my notice, was over twenty years ago while going from Germantown to Philadelphia. Having missed the cars I had concluded to foot my way back, but the power of a July sun, coupled with the dust of the road, soon made me feel thirsty. I stopped at a way-side Inn, and called for a glass of wine: “Had no wine by the glass!”—I asked for a little brandy and water: could not give me any, it being against the law to sell a less quantity than a gallon!—Freshly landed in this free country I was somewhat taken by surprise; it was something new to me, amongst my travels, to be refused enough to quench my thirst, and be offered sufficient to kill a dozen times! My dull mind was set a working, and kept long in contemplation before the thought; how extraordinary, mysterious, and queer was a free country.

Shortly afterwards having gone up, or down East, I forget which, I was conducted by a friend to one of these halls where is supposed to assemble all the wisdom and intellect of a nation—a great mistake, I assure you—and whilst there I witnessed a rich scene. The house, as I was afterwards informed, was in a fit of ill-humour, the honorable members being under the effects of a laborious digestion, caused by eating too freely of cod-fish balls for breakfast. One of the honorables, a shipping merchant, whose name I forget—largely engaged in the coffee and tea trade—rose from his seat to address the house. He was wealthy and skillful, and known

for the excellency of his entertainments, where choice wines flowed freely—whenever a certain vote was to be carried—every body shouted hear! hear! all listened.

In a short but eloquent speech, he soon proved that drinking was the cause of all the evil, vices, murders, which could be witnessed—since the fall of Eve through the apple juice—everywhere in our otherwise quiet and happy country, in this land of freedom! any day one chose to take up and read a paper; that all the adulteries committed; all the divorcees, which followed; that all the strikes, the quarrels, the robberies, the spoliations, the murders which constantly took place—all, all—drinking was the cause; that there remained nothing but to close all drinking establishments—those of tea and coffee excepted—all the distilleries; to check all importations of wines and brandies; and to forbid under the most severe penalties the sale of aleoholic beverages; that this done, the world would at once make a halt, and, instead of continuing its way straight to perdition, would retrograde towards the golden age; a result likely to be reached provided we took backwards as many steps as we had taken forward. The world is full of echoes, and particularly legislative halls; well, on that day there was an echo, and a deep and sonorous one it was too. It said: at last the time has come when we should curtail that natural liberty which the whole world admits, even the greatest despots, I confess—it is time that we should prohibit the sale of the vile beverage under whose influence laid the good Noah when

the posterity of Ham was cursed; a beverage which offered the friends of Cana too much merriment at the wedding; in short it is high time that we should put a stop to a trade which all other nations appear anxious to increase; let us follow the commands of Jonadab to the Rechabites, and the blessing of the Almighty will be transferred upon us, we are the chosen ones!

The House to a few exceptions made itself the echo of the Echo, for it is the unfortunate part of majorities, even in our well ascertained free country, to be nothing but echoes, and I believed for a moment that they would sing that good old song of David: “Behold! how good and how pleasant it is for brethren to dwell together in unity.”

It followed that the majority became of the opinion that all the robberies, spoliations, strikes, adulteries, divorcees, murders &c.; which were of daily occurrence, could easily be traced to liquor and to the noxious influence of bad spirits, and as they had no real spirit of their own, they passed a law for the utter prohibition of aleoholic drinks under whatever shape possible except—mark the proviso, for medical purposes!—

The final result was, that the sale of liquors, wines &c., was transferred from one class of citizens to another; that a people heretofore healthy, became quite sickly, and that wines, brandies &c. were used as much if not more than before, only under the plea of “medical purposes.” Mark the moral.

DR. AMPELOS.

GOLDEN HILLS VINEYARD, }
NAUVOO, ILLS. }

TRAINING OF THE HERBEMONT.

MR. GEORGE HUSMANN:

As I see in the May number no remarks about the frost of the 16th and 17th of April, I will report to you that Concord has suffered badly, Norton's but little, and other varieties a good deal, but the dormant buds, which pushed out branches, show a good deal of fruit, especially on Concord, and we may count on a two-third crop yet, if nothing else should happen.

Herbemont has suffered severely by the early frost in fall, and most of the buds which had escaped were killed by the frost of the 17th of April. The cause why the *Herbemont* wood is so easily injured by frost, is, I think, to be sought in its late growth in fall, being yet green when early frost sets in, as has been the case for the last two years.

Can you not advise us of a method by which its wood may be ripened sooner, as, for instance, by summer pinching and pruning, or by not cultivating late in summer. By any advice you could give upon this subject, you would much oblige the many friends of this excellent grape.

Yours, truly,

HENRY NAHM.

Augusta, Mo., May 20, 1870.

GEO. HUSMANN, *Editor Grape Cult.*:

In your article about the "Effects of the Cold Snap," (June number, page 142,) you report on nearly all varieties, but omit to report about the *Herbemont*. It is one of the varieties which were not advanced enough that the frost (of last Easter eve) could do any harm, and still we doubt that you could name

it among those "not injured at all."

With us, at least, the *Herbemont* shows but *very little* fruit this season. Our vines of this variety were covered last fall, uncovered this spring in proper season, and we ascribe the failure to the very wet winter, when the wet, cold covering injured the buds, so much so, that we intend in future to try with a portion of our *Herbemont* vines whether merely laying down to the ground is not a sufficient protection against freezing, while we would avoid the danger of their fruit being killed by the cold dampness of the ground in a wet winter.

Should you disagree with us on this subject, you will at least approve that we try to study in the school of disaster and to add *our* lessons to those of other studying and suffering grape growers.

Yours,

ISIDOR BUSH & SON.

BUSHBERG, Mo., June, 1870.

[As both of the above letters refer to the same subject we publish them together, and thank our friends for calling our attention to this subject, while we plead guilty to a serious oversight in not giving the needed advice before it was asked.

We think Mr. Nahm on the right track, and believe that we can assure our friends Bush, that they need not fear any damage from covering with earth, *if the wood is ripe when thus covered*. They must look for the evil further back than they have done, namely, to the late growth of the *Herbemont*, *Cunningham* and similar varieties. If we can fully and per-

fectly ripen their wood by any method of training or cultivation, we believe that they may as safely be left without covering as most of the varieties we cultivate.

We think we can reach the desired object by several means combined, which we will name to our readers, and hope that many of our readers will profit from them, and the cultivation of these excellent varieties will thus become more general than it is at present.

1. Choose for your Herbemont the poorest and dryest location you have, if possible a southern exposure, with limestone soil. Many years ago Mr. M. Poeschel prepared, with a great deal of expense and labor, a stony southern hill-side, so steep that he terraced it with the stones taken out of the ground. This was at first planted with Catawba, but they invariably burned and turned yellow during the summer. The Catawbas were then dug up and Herbemont and Norton's planted in their place, which flourished exceedingly well, produced splendidly, and the Herbemonts on that spot *always* ripened their wood. They were seldom, if ever, covered, and produced splendid crops nearly every year of as fine Herbemont bunches as we ever saw.

2. Pinch the ends of the young canes as soon as they have grown, or three four feet, as advised in article on summer pruning, No. 2. This will divide the growth of each cane into from three to four laterals, which will generally ripen their wood much more perfectly than the main cane would had it been left unchecked. After these have

grown about three feet, they may again be pinched or stopped, and if you follow this course vigorously, we think you will have well ripened wood for fruiting. It is the same principle which leads us to pinch dwarf pears, viz: stopping the young growth to ripen the wood, and promote fruitfulness.

3. Give your vines *enough to do*, that is, "Prune long and fruit heavily." A well-developed Herbemont vine, which has at least ten feet of room on the trellis, is able to bear and ripen perfectly from 20 to 25 lbs. of grapes. They have often done it for us, and will then ripen their wood much better, than when the principal energy of the vine is expended in producing wood.

4. Cultivate your vineyard well *early in the season*; keep it clean and mellow, but after middle of July cultivate but little, especially in wet seasons like the last. Should weeds appear, scrape but shallow with the hoe until late in the fall, when the leaves have fallen, when you can give it a good, deep plowing. Before you plow, however, prune your vines and lay them down along the trellis, throwing the ground on them with spade and plow, leaving a furrow in the middle of the row. This will leave the covered vines on a ridge, and there is no danger of injury by wet.

We can assure our friend Bush that the method he proposes would be worse than having the vines hanging loose, for they are much more easily injured by wet and cold when fastened on the ground than when under it or left to hang loosely on the trellis. We have tried it to our cost, and "know of what we affirm."—EDITOR.]

WINE CELLARS.

Many of our readers, in expectation of a good grape crop, (and we hope they are the majority) will have to build these very necessary appendages to their vineyards, and a few hints on their construction may come in season. We have become convinced, in a practice of some duration, that a great deal of unnecessary, nay even injurious expense has been incurred in their construction. As early as 1857, while in conversation with Mr. Fournier, then manager of cellars of the Longworth Wine House, he told us in his brusque manner and his broken English, "Much better if people will ferment their must in open shed than in a d—d cold cellar." We have often thought of this remark, and have, more and more, been convinced of its truth. Talking about an arched, cool cellar to keep your wine, is all well enough, but *practice* has taught us, as well as dear bought experience, that must should be fermented quickly and thoroughly, freed from its lees as speedily as possible, and if this has been done, you need not fear even a considerable fluctuation of temperature. If your wine *is* wine—that is, if all the sugar has been changed into alcohol, and it has become perfectly bright and clear, without lees being yet suspended in it, you need not fear for its keeping, even if the thermometer should run up to 70°, or even 75° in summer.

Having become convinced of this, and having built a very expensive cellar once, which proved much too cool for fermentation, we set to work

to construct a cheap storehouse for the first crop of the Bluffton Wine Company here, (about 13,000 gallons) on the following plan:

At the foot of the hill into which we intend to make an arched cellar by and by, we put up a building of rough lumber 65 feet long by 24 wide, and 10 feet high. The frame was made of scantling 4 by 6, rough boards nailed upright on the outside, and crossways on the inside, thus making a hollow wall, with a space of four inches between the outside and inside boards. This was filled with sawdust, which was put in gradually when the inner boards were nailed on, and firmly stamped and pressed down, somewhat on the plan of an icedhouse. Over this was laid a floor, also of rough lumber, and a good roof completed the building, which also has five windows, each of four panes 10 by 12, with shutters, to be closed in cold weather, and a strong double door, six feet wide. The floor we covered with hay above. In this building we have fermented our wine, and kept it so far (16th June) without the temperature rising above 70°, and the wine is now in prime condition, bright and marketable. We have room in it for about 25,000 gallons, and the whole cost was \$1,250. A cellar of the same dimensions, arched with stone, would have cost between 6 to \$8,000, and we doubt if our wine would be in as good condition now, had we fermented and stored it in such a one. Of course, we had to have a stove in it during winter, and had to keep the fire up

all day sometimes, when the weather was very cold, but with this additional help, we had no trouble in keeping it warm enough. We intend to put up another building similar to it, on the north side of it, at a cost of about \$1350, and these two will hold all of our crop, which we hope will be about 40,000 gallons this season. We intend to add a few improvements, however. Instead of four inches space between the walls, we intend to make it six inches, thus making the walls two inches thicker, and instead of a simple floor above, we intend to seal it with tight plank below the joists, fill the space also with sawdust, and lay a floor above this. Then we are satisfied that we have a storehouse warm enough in winter and cool enough in summer, in which our must will ferment speedily and perfectly, and make good wine in the shortest possible time. Both buildings are entirely above ground, and are much more healthy to work in, as

they are always dry and the air pure, than underground cellars, with the additional advantage of being light enough to work conveniently, except in very cold weather, when the shutters must all be kept closed.

There, kind readers, you have our plan. If you doubt its feasibility or applicability, come and see for yourself, and taste the wines stored in it, and after that, we think you will feel inclined to "go and do likewise." If this article should save you time and money, and you feel that we have given you good advice for which you are grateful, hand the *GRAPE CULTURIST* to some of your neighbors who plant grapes but do not read it, and urge them to subscribe; but above all, give us also your ideas and experience, so that we may all learn from each other. We do not doubt but that many of you may suggest improvements yet, and we all ought to learn and improve as long as we live.

THE PROSPECTS FOR THE COMING CROP.

It seems like if our faith in the reliability of the grape crop every year should be severely tried this season. First came the frost, which damaged some vineyards considerably, and now we hear of destructive hailstorms which have visited some of our grape growing districts. In St. Charles and vicinity we hear that the whole crop has been destroyed by a terrific hailstorm. Parts of Gasconade county, especially the southern part, were also severely damaged, and even some of our vineyards here were

damaged by hail a week ago, to the extent of about one fifth of their crop, while the greater part escaped entirely unhurt, and show a splendid crop of fruit. Our experimental vineyard, where about seventy varieties are in full bearing this season, presents a splendid sight. The size and number of bunches is truly enormous, and we have not seen any mildew as yet, nor any other disease, on any of the varieties owing as we think, to the dry season we have had so far. We see hardly any noxious insects here,

but hear that the grape vine *Fidia*, (figured in May number, 1869) is completely destroying the foliage, and even the fruit, of some vineyards in the neighbourhood of Hermann. We have seen some berries punctured by the Grape Curculio, but not to any alarming extent.

We have great faith in the recuperative qualities of the vine, and therefore hope that even those vine-

yards, which have been so severely visited by hail, will partially recover, and yield to their owners, if not a full crop, at least a partial one, to compensate them for their labor.

Will not our readers favor us with their reports? From what we have been able to learn so far, we think the crop, on an average, will yet be a fair one.—EDITOR.

SHOVEL WINE.

“Under this name, a wine has lately been introduced from Lothringen, which has been much lauded in European Journals, and which took several first premiums at Paris. The method to produce this really exquisite beverage is very simple. The grapes, after they are mashed are thrown into a shallow vat, and are then incessantly worked with iron shovels for 24 hours, from which process it derives its name. Fermentation, which has so far been suspended or disturbed, then sets in with great violence and rapidity, and as soon as the husks have settled, the juice can be put into casks, when it is treated as usual. The pure product of this process is not only one third better, but also has the exquisite bouquet and development of wine several years old, so that the vintner can at once sell it, and realize his capital from it, instead of waiting several years. The only draw back to the so produced wines is that small quantities lose their fine bouquet if kept in a warm room, which they regain, however, if placed in a

cool cellar. This could perhaps be obviated by the discovery of Pasteur, who heats the wine, by which process it will not even sour, when exposed to air. The shovelling could be done by machinery, to save unnecessary labor. Will our grape growers try it?”

[One of our subscribers sends us the above, clipped from the New York Belletristic Journal, and wishes to have our opinion of it. We think it is “air treatment” in another shape, and eventually tends to the same purpose, and similar results, as Mr. D’Heureuse’s process, namely to bring every part and particle of the must and grapes into contact with air, thus inducing rapid and thorough fermentation, and thereby hastening the maturity of the wine. As the D’Heureuse process is much more simple and convenient, we prefer it, especially as the contact with iron shovels is avoided, which can not be to the advantage of the wine, and it is much less laborious.—EDITOR.]

MISSISSIPPI VALLEY GRAPE GROWERS' ASSOCIATION—THIRD ANNUAL MEETING.

(Concluded.)

TYING MATERIAL.

Mr. Colman—What is the best and most economical material for tying vines?

Mr. Husmann—The only fit material for spring tying is the willow; golden is best, but there are native varieties that will do.

Dr. Spalding—In the absence of willow, uses the gunny cloth; is cheaper than to hunt for willow, and will last through the season, but when this is used in spring a little more care is required in summer tying.

Dr. Clagett—For trellis, strings will do, but for stakes, would use Papaw or Linn bark.

Mr. Edwards—Had used different materials, and found the willow alone suitable for tying to stakes.

Mr. Squires—Had seen a new plant recommended by Professor Shepherd, which he thought would meet this want of grape growers.

Adjourned till 2 p. m.

AFTERNOON SESSION.

Mr. Riley, State Entomologist, read a paper on the grape vine borer, and most of the subsequent part of the session was devoted to the discussion of the subject.

The question of making the fall meeting the annual and only meeting, was discussed.

Mr. Engleman spoke of the difficulty of exhibiting wine in good con-

dition at that time, owing to the warm weather.

Dr. Spalding—An ice-chest will obviate that.

After a vote of thanks for the use of the hall so kindly tendered by the St. Louis Fair Association, and of the *substantial* to the Jauitor, an adjournment was taken to the 2d Wednesday in September next, in this city, at which time it was agreed to hold an exhibition of both fruit and wines.

STATISTICAL RETURNS.

Kansas.—From Kansas we have reports from six vine growers only. Planted in 1869, 2 3-4 acres, and 400 vines—8x8, 6x8 and 8x12. Two years old, 15 1-4 acres; over two years, 18 3-4 acres. Grapes sold, 1300 pounds, at 12 cents and upwards per pound; 560 gallons of wine made. Leavenworth, 9-10 of crop lost by grasshoppers. At Topeka, some loss by hail. At Manhattan, 1-10 by birds. No rot complained of. A large number of varieties are under cultivation for trial. Oldest vines, 12 years. Succeed well.

Illinois.—Reports received from eighteen grape growers, show that there were planted by them in 1869, 21,222 vines, at distances varying from 5x5 to 8x10. The largest number planted, 6x6; next, 8x8; next, 6x8. Vines two years old, 12 acres; also 8,575 vines. Some reporting by acres and others by number of vines. Vines over two years old, 37 acres; also, 32,620 vines. Grapes sold, 26,500

pounds, all but one receiving 8 cents a pound. Gallons of wine made, 7,875; on hand, 9,460 gallons. Most of the reports are from Alton and vicinity. They show a loss from rot and other causes, chiefly rot, varying from 1-8 to 3-4, and in one instance, 9-10.

In addition to the above, we have the following:

Statistics of grape vines in Nauvoo, Hancock county, Ill., for the spring of 1869, made up by Emil Baxter, of Golden Hills Vineyard, Nauvoo.

	<i>Bearing.</i>	<i>Not bearing.</i>	<i>Total.</i>
Catawba.....	275,900	27,300	303,200
Concord.....	29,250	12,350	32,600
Delaware.....	7,375	4,290	11,865
Norton Seedl'g.	9,105	2,780	11,885
Clinton.....	9,450	5,000	14,450
Other vines.....	11,515	10,000	21,515
	<hr/>	<hr/>	<hr/>
	333,795	61,720	395,515
Outside of Nauvoo, in the surrounding townships, for which we had no statistics for 1869, there is about.....			150,000
	<hr/>		
Total in and about Nauvoo....	545,515		

These vines cover an area of about 550 acres. Most of the old vineyards are planted 6x6, but of late years the fashion has been 6 or 7 by 8. In 1869 the Catawba crop—owing to mildew induced by a most unfavorable wet spring and summer—was an entire failure, and no wine was made. About 3,000 gallons of Concord and Clinton was the entire result of the year—the most disastrous in our annals. Even this small crop was much endangered, and suffered from the depredations of the Grape Curculio.

A substitute for the Catawba is sadly wanted, and our vintners are turning their attention to the Goethe, Concord and Ives. The Iona has been tried, but so far without real

success. The Walter is also on trial, and may prove as good, though it suffered much last summer, being the first season on trial.

MAKANDA, Ill., April 1, 1870.

L. D. Morse, Esq.: We think 7x10 would be a better distance for planting, as seven feet is ample room for cultivating, and ten feet will allow longer pruning, which we think would be better, as it allows you to take off imperfect bunches, and have enough left for a crop.

The number of vines planted in this neighborhood is 20,000; the number planted in the vicinity of Makanda is more than 100,000. I have been trying to get the correct number, but have not succeeded. The crop in this portion of the State was injured about one-third by rot. We attribute it to unfavorable weather. There was a very few of the Grape Curculio and some other insects, but they did but very little damage. The Delaware, Maxatawney and Ives' Seedling did not rot any scarcely. The grapes heretofore have been mostly shipped; but a great many are making arrangements for making wine this season.

The number of pounds of grapes shipped from Kakanda last year was 249,898. If the season is favorable, there will be at least 600,000 pounds this year. Truly yours,

J. S. SPRINGER & Co.

MISSOURI.

Hermann.—Mr. Dean W. Tainter reports from his sub-school district, lying east of Hermann, the following figures: Grapes planted in 1869, 2½ acres; distances, 6x6 and 8x8; two years old, 6 acres; over two years old,

87 $\frac{1}{4}$ acres, Grapes sold, 17,100 pounds, at an average price of 6 $\frac{1}{2}$ cents per pound; gallons of wine made, 30,400. Mr. T. says: "For a fair estimate of the county, multiply the totals by five, inasmuch as we have made one-fifth of the generally estimated number of gallons of wine." Multiplying the above figures by five, gives about 477 $\frac{1}{2}$ acres of grapes; 85,500 pounds of grapes sold, yielding at 6 $\frac{1}{2}$ cents a pound \$5,557.50. Wine made, 152,000 gallons, which, at an average value of \$1.00 a gallon, gives the total grape product a value of 157,557.50 in Gasconade county, chiefly in Hermann.

Augusta.—Ten grape growers in Augusta reported the following:—Planted in 1869, 4,010 vines, at distances varying from 5x6 to 7x8; the largest number, 6x7; two years old, 1,962 vines, and three acres; over two years old, 6,310 vines and 10 $\frac{1}{4}$ acres. Grapes sold, 800 pounds, at 6 to 10 cents a pound. Wine made; 7,190 gallons; on hand, 5,595 gallons. In addition to the above, the Augusta Wine Company planted in 1869, 3,675 vines, 6x7 and 7x7, and have, two years old, 5,200 vines; over two years old, 14,900 vines; and made 8,000 gallons of wine. The oldest vineyards here are 23 years old, and, being mostly Catawba, are considered by several as "played out." Other varieties are doing well.

Franklin County.—Ten grape growers in Franklin county report: Planted in 1869, 1,160 vines, and 4 $\frac{1}{2}$ acres, 6x8 to 8x8; two years old, 2,100 vines and 2 $\frac{1}{2}$ acres; over two years old, 8,550 vines, and 8 acres. Grapes sold 10,750 pounds, at 7 to 10 cents. Wine made, 6,800 gallons.

In addition, we have the report of the Missouri Smelting and Mineral Land Company, of Stanton, showing 2,800 vines planted in 1869, and about 68 acres two years old.

Mr. G. L. Busch, of Washington, says: "My oldest vines are Catawbas, 22 years old; shall be extirpated next winter, to make room for Goethe. Oldest Nortons, 18 years, as vigorous and healthy as ever, bearing a full crop every year."

St. Louis County.—In this county eighteen grape growers reported, footing up as follows: Planted in 1869, 7,662 vines, and 8 $\frac{3}{4}$ acres, a large proportion 8x8; two years old, 2,695 vines, and 8 $\frac{1}{2}$ acres; over two years 2,270 vines, and 30 $\frac{1}{2}$ acres. Grapes sold, 37,250 pounds, at 8 to 13 cents. Wine made, 6,360 gallons; wine on hand, 12,960 gallons.

Additional, is the report of the Cliff Cave Wine Company, in the south part of the county: Distance planted, 8x8; two years old, 3 $\frac{1}{2}$ acres; over two years old 19 $\frac{1}{2}$ acres. Grapes sold at 10 $\frac{1}{2}$ cents a pound. Wine made, 3,000 gallons. Lost one-third from all causes; say one-fourth from rot.

George Hoffman, Kirkwood, reports having lost, through insects and rot, five-sixths of his crop; the grasshoppers doing serious damage. He says: "I dug my vineyard too deep in the spring, so that all the heavy rains remained on the ground, never ran off, and the early rot came the 10th of June—while unhoed and uncultivated vineyards showed none."

Adolph Kehr, Barrett's Station, says: "I consider the mixture of Virginia seedling and Concord, in pressing, of great advantage.

L. E. Armstrong, from E. J. Gay, says: "My experience is against deep cultivation, over-fruiting while young, and summer pruning; all cultivation should cease after July."

John S. Seymour, Eureka, says: "Tarring posts is useless. Five years ago I boiled 400 white oak posts in gas tar, and some of them are rotted off. Twelve years ago I put in 200 posts; 175 of them were green chinquepin oak, and 25 were white oak, well seasoned. The latter rotted off in five or six years; some of the green chinquepins lasted ten years."

Jefferson County.—Jefferson is claimed to be one of the best counties for grape growing in the State. The business is quite largely pursued there, and yet but half a dozen of the grape growers have thought it worth while to report. The totals are as follows: Planted in 1869, 900 vines, and 4½ acres, all 8x8; two years old, 1,000 vines, and 4 acres; over two years old, 8,000 vines, and 15 acres. Grapes sold, 8,000 pounds, at 5 to 20 cents a pound. Wine made, 2,320 gallons; on hand, 2,490.

A. Bainbridge, De Soto, says: "The season has proved to me that trenching for planting does not prevent the rot of grapes in this neighborhood. I think that grapes planted in trenched land will do better in dry seasons than those planted in holes dug."

Isidor Bush & Son, Bushberg, write: "We deem it interesting to know, from the experience of the past year, first, that the rot was worse where the ground was well cultivated than where it was neglected; worse on vines that were well pruned than on those on which apparently too much wood had been left; worse on those

which had good soil and made a vigorous growth, than on poor soil and weak plants; worse where summer pruning was done than where it was neglected. All this, probably, in consequence of the extreme wet season. Second, that we have probably sufficiently desirable grapes for red wines, and are planting *too many* thereof, in proportion to white wine grapes. Concord, Norton, Hartford and Ives have taken the place of Catawba in nine-tenths of our vineyards; but they can not supply its place as a wine grape. We look upon Goethe, Maxatawney, Herbemont, Cunningham, Rulander, Louisiana, and even to Martha and North Carolina, as the vines we should plant largely for white wine (until we find better varieties), to produce of the latter at least as much as of red wines. The Delaware makes one of the very best white wines; but last year, with us, and in most places with others, it lost the foliage, and did not fully ripen its delicious fruit. Third, that Rogers' No. 1 (Goethe) and No. 4 (Wilder), are among our finest table grapes, and bring a very good price. We sold 200 pounds at wholesale at 20 cents per pound, while Concords brought at the same time only 10 cents.

Scattering.—From various other portions of this State reports, more or less complete, have been received from about 30 vine growers, giving the following result: Planted in 1869, 49,100 vines, and 26 acres; distances varying from 6x6 to 8x11; the largest number, 8x8 and 6x8; two years old, 9,400 vines, and 47 acres; over two years, 18,750 vines, and 77 3-4 acres. Grapes sold, 16,675 pounds,

at an average price of about 12 cents a pound. Gallons of wine made, 32,870; on hand, 23,140.

To this is to be added the report of the Bluffton Wine Company, of Bluffton, as follows: Planted in 1869, 12,774 vines, 6x6 and 6x10; two years old, 22,652; over two years old, 24,408. Wine made, 13,490 gallons; on hand, 13,000 gallons.

Notes.—A. E. Trabue, Hannibal, lost 9-10 of his crop by bad weather; some by birds. "Grapes did best on the wettest, poorest ground; also, bunches down in the weeds rotted less than those exposed to the wind, sun, etc. On the richest, best drained ground, Concords all rotted *en masse*."

Hon. Fred. Muench, Dutzow, Warren county, writes: "My principal reliance, as yet, is on Norton and Cynthiana for dark wines: on Herbeumont and Louisiana for superior light wine; on Concord and Goethe for a more ordinary and yet wholesome and pleasant beverage. All the said varieties do very well with me, while the Catawba, Cassady, Delaware and others never paid for my labor. I have about sixty varieties on trial, some promising well. I expect to raise hardy seedlings from the Herbeumont and Louisiana; the latter I consider the *ne plus ultra* of all our grapes."

Dr. N. de Wyl, Jefferson City, reports most varieties there doing well, except Catawba and Taylor, which are worthless. About 13 acres bearing vines in the county, and about 7 acres at the opposite bluff, in Callaway county.

F. M. Redburn, Keytesville, says: "I have not had a diseased vine in

my vineyard as yet. My Delawares, some four years old, are perfectly healthy and fruit well."

John Ballinger, Gallatin, is well pleased with his success, and prefers the Concord to any other of his twenty varieties.

Reports from St. Joseph and vicinity are quite favorable.

Gottlieb Graff & Bros., on Graff's Island, in the Missouri river, three miles above Hermann, report the Delaware doing very well.

In a southwest direction a good deal of interest and good success reported from St. James.

The following from the extreme Southwest is of interest:

GRANBY, Newton County, Mo., }
April 1, 1870. }

L. D. Morse, Esq.: I should have given you a more detailed report about grape culture here with pleasure, but now it is too late for anything but short answers, if this reaches you before the meeting.

1st. There were about 2,000 grape vines planted in this county in 1869; distance from 6x6 to 8x10. I planted Concord 6x6, intending to dig up every alternate row, and every alternate vine in the rows, after they get too large.

2d. There were about 350 vines in bearing last year; 300 of them in their first bearing (third season).

3d. There were about 4,000 vines planted in vineyards in Newton Co. in 1869, and about 4,000 more we had in the nursery. Of these about 3,500 were Concord, 100 Clinton, 80 Isabella, 40 Norton, 30 Delaware, 30 Taylor, and the balance of about 35 other varieties.

4th. Hardly any grapes sold.

5th. We made last year the first wine made this side of Springfield. One hundred and fifty gallons of Concord wine from 200 vines in their first bearing; average product per vine, 8 pounds.

6th. Weather very unfavorable the forepart of summer. Rot 40 per cent. in Catawba, 70 per cent. in Isabella, 20 per cent. in Iona, 2 per cent. in Clinton and Taylor; a few berries in Concord. No rot at all in Rulander, Louisiana, Martha, Hartford, Delaware, Mary Ann, Norton, Cyathiana; on the latter variety I found a bunch of grapes (two inches under ground, grown on a rooted layer), in February last. It was colored, matured, perfectly sound yet, and good to eat.

Little injury done by insects, but quite considerable by birds. When the many vineyards that are now being planted, especially in our neighborhood, come into bearing, birds will no longer be the pests they now are.

I have never seen mildew here on any vine. Am experimenting with about ten European varieties imported from Switzerland and Hungary, and even they showed no sign of mildew the last unfavorable season, and kept their foliage perfectly green and healthy up to the first killing frost in November.

More vines have been planted this winter than ever before, and we have established a perfect grape nursery, in order to be able to supply the growing demand for roots.

Our vineyards are on Oliver's prairie, three and a half miles south of Granby. We are experimenting with about fifty varieties of American grapes; intend to plant another experimental vine-

yard on timber land (a hill of gentle slope) next fall. All the Fox grapes, Rogers' Hybrids and Delawares, do splendidly on our prairies. The summer grapes do well, also; but we intend to plant them mostly on hills and woodlands, where grapes similar to Norton grow wild in abundance.

Yours truly,

HERMANN JAEGER.

Conclusion.—On footing up the number of vines and acres reported in Missouri, and reducing the number of vines to acres, taking 6×8 as an average distance, gives us 1,031 1-4 acres. The grapes sold by those who have reported, amount to 73,475 pounds, which, at an average price of 8 cents a pound, gives \$5,878. The number of gallons of wine reported as made last year is 80,010. It will be evident to those familiar with the State, that not one-twentieth of the vineyards have been reported. Taking \$1.00 per gallon as an average value of the wine made, and multiplying the figures above by 20, adding the product of Hermann, gives us \$1,875,317 50 as the annual value of the grape crop of the State. The estimate is undoubtedly quite too small, yet it shows an interest of considerable magnitude.

The total number of vines reported as planted in 1869, reduced to acres, is about 132 acres against about 194 acres planted in 1868, a falling off of almost one-half. Near the large market of St. Louis there was little if any falling off. The number of gallons of wine reported on hand does not equal the number made last year by some 10,000 gallons.

The reports obtained possess con-

siderable interest, and if grape growers could be induced to report generally, the result would be of great interest and value.

[We give the statistics in full, as we deem them, meagre as they are, of great interest. We wish grape growers would think it worth their while to report more generally, and we offer our pages to them for the purpose. Much useful information could thus be gathered, and be of more advantage than the discussions of any meeting which lasts but a few days at best, and at which much of the time is uselessly consumed by other matters. Some of the views expressed in the correspondence, have drawn our attention, as we think they are apt to mislead grape growers. Mr. Armstrong says that his experience is against deep cultivation, summer pruning and cultivation after July. Has it never struck him, that different seasons require different treatment? We cultivate shallow in wet seasons, and never work the soil in any shape while wet; while in dry seasons we consider deep cultivation and frequent working all important, as loose, well pulverized soil, thrown around the vine, is the best mulch it can have. If he leaves his vines without cultivation after July, pray how does he keep down the weeds in *wet* seasons, or how can they withstand the drought in such dry summers as those of 1867—1868?

Mr. Bainbridge does not like to plant in holes, and is perfectly right in that, only we did not suppose that anybody followed that practice yet. We fancy neither—trenching and inverting the soil, nor planting in holes. Holes, especially in tenacious subsoil, are so many receptacles of water, and give the

vine *wet feet*, as the phrase commonly goes, thereby causing disease. Stir the soil to an even depth, without inverting it, is our advice to all planters, if they desire healthy vines. Messrs. Bush & Son report the rot worst in cultivated ground, and vines that were pruned short, on rich soil, and where summer pruning was done. We think their ground may have been cultivated during wet weather, when of course it would enhance the rot. That those vines should rot worst which were pruned short, and made a rank growth of young wood, is natural, and only confirms our advice, “to prune long in fall, and rub off what may be superfluous early in Spring.” Give the vine enough to do; it will be much healthier, and the air can circulate through it much more freely, than when pruned short, and all its energies are led to the production of young wood. That the rot should be worse in rich soil and on well cultivated vines, is also natural, and may be led to the same cause—too rank and succulent growth. But when they assert that it was worse on vines that were summer pruned than where it was neglected, we say, serves them right. We saw *how* their vines were summer pruned, or rather cut, slashed and maimed, we would call it; our heart bled for the poor misused and abused vines, and we told them at the time that they had much better left it alone altogether, than maltreat their vines thus. We have found summer pruning, if done at the proper time, when the shoots are so young that they can be easily pinched with finger and thumb one of the best *preventives* against rot; but if done late, as they did it, and the fruit bearing branch

rudely lopped off with a knife when it has already attained the size of a fourth of an inch in diameter, one of the best inventives of rot. Will grape growers never learn that the leaves are the lungs of the plant, and that the true object of summer pruning is only to gently stop and check the young shoot, and make *two* leaves grow where there would but have been *one* before? We endorse every word of what they say about the necessity of growing more grapes for white wine, and think their advice about varieties good.

Does Mr. Trabue really mean to say that grapes succeeded best with him on *wet*, poor soil, or is it a bungle of the

reporters, who sometimes play sad havoc with our meaning? We can believe him when he says on *poor* soil, but that they should do best where wet, and rot most on well drained soil, is contrary to all experienced we have had.

We think that much of the mischief which our friends ascribe to cultivation, comes from cultivating *when too wet*, and too deep. With us it is a rule to cultivate very shallow, and *only* when the soil is in fair working order, in *wet* seasons, and to cultivate deeply and frequently in *dry* seasons, keeping the vines well supplied with loose earth. We think our readers will find this the best course, if they will try it.—ED.]

GRAPES AROUND ROCHEPORT, BOONE COUNTY, MO.

I have read the GRAPE CULTURIST with much pleasure and profit since its commencement, and think every man who has as much as twenty-five grape vines, would be greatly benefited by taking it. I have a small vineyard (400 vines) under way, of the following kinds: Concord, Norton's Virginia, Herbemont, Hartford Prolific, Delaware, Martha, Cynthiana, Rogers' Nos. 1, 2, 4 and 22, North Carolina Seedling. They have been out one year, and are making a fine growth. The plants were bought of the Bluffton Wine Company. My land is not such as is generally considered most favorable for the grape, being a black, rich loam, but very elevated, about 250 feet above the Missouri river, and on the apex of a ridge between two large creeks, distant from the Missouri river about three miles. My object in planting so many kinds in such a small quan-

tity was first, to have a variety for my own use, and secondly, to test what kind or kinds will succeed best on my soil. When I arrive at definite results, will report to you.

I have a few old vines of the "Cape Grape," the Oporto, Concord, Norton's Virginia, Creveling, and Isabella. The Isabella, grown in the ordinary way, all rotted to nothing, but a vine of this grape planted to a tulip tree bore a fine crop, twenty feet from the ground. There are four or five small vineyards commenced in my neighborhood, some of them on the river and creek bluffs, in exceedingly favorable localities. I will notice them and report progress hereafter. Respectfully,

M. P. LIENTZ.

ROCHEPORT POSTOFFICE, Boone Co., Mo.

[Thanks for the promise of reports, which we hope you will fulfil in due time.—EDITOR.]

EDITOR'S LETTER BOX.

COVINGTON, GA., May 23rd, 1870.
GEO. HUSMANN, Esq.

Dear Sir:—I would be pleased to receive your method of preparing liquid ammonia for the *acid test*. A gentleman of North Carolina uses the Hydrometer at 95.0 or 5 degrees lighter than distilled water; if this process will answer can I obtain the Hydrometer adapted for this purpose of Jacob Blattner of your city, and what is the cost. I look for good results from Dr. Wylie's new Hybrid of the Vinifari, impregnated with pollen of our white Scuppernong. If the new vine retains the habits of the male parent, and the improved fruit of the European grape we shall probably have the best grape, all things being equal that has ever yet been produced. I have applied for a supply of the new vines and shall give it a fair trial. We have had no rain since the 29 April; should it continue dry ten days longer my grape nursery will begin to suffer, I remain, etc.,

A. C. COOK.

[We think the acidometer a very dangerous instrument in the hands of the inexperienced, as the solution of ammonia is subject to the influence of air so much. Our Acidometer is our tongue, and we would rather trust to it, than to the most complicated instruments. We think it safer, and more reliable, as it has never misled us yet. We trust you will report your experience with the new Scuppernong Hybrid.—EDITOR.]

FALLSTON, June 7th, 1870.

Dear Sir:—I am extremely interested in the contents and management

of the GRAPE CULTURIST, to which I have lately become a subscriber. The quality I have chiefly admired, aside from the ability displayed in affording valuable information, is the elimination and expression of truth—without fear, favor or affection, and is a striking characteristic of the matter it contains. The principles and theories you inculcate, are however widely different from the notions I had formerly of grape growing &c. I have only just commenced grape growing, have had but a little experience in the fermentation of must, and therefore know little practically of the vintner's business, but I have read extensively standard works, treating upon this subject in Europe, and was surprised in the difference in the management of wine especially, there and here. I intend to apply perhaps extensively the simple rule of subtraction to your good nature, and thereby find ready access to your large fund of experience. Now in all the works upon fermentation of wine in Europe, every possible exclusion of the must from the air is asserted to be the very best mode to ferment red wine—you recommend frequent exposure to air—even running it through the rose of a watering pot, you do not say into what, but I presume into a bucket or other open vessel—does not the wine lose its alcohol by so doing—I have found it so.

I was going to buy your book, but as you have advised to read the CULTURIST, please give us all information. Can a common cellar properly ferment wine, what is the cost of a two storied

one; will wild grapes make wine at all palatable? I wish to experiment until the varieties I here procured produce fruit; are our varieties worth cultivating in California? does D'Heurense's process obviate the necessity of a scientifically constructed wine cellar—do you think grape growing will continue to be profitable—but will it after a few years not pay.

Very respectfully,

CHAS. BOND.

[We know that it has been the practice to exclude air as much as possible from wines during their fermentation, but you must remember that without access of air, fermentation could not set in at all. A great revolution is working its way, quietly but steadily, as you will see from several articles in this number. You will find an article on cellars in this number. Some of our wild grapes make very good wine indeed, especially the Aestivalis class. We think that grape growing will continue to be profitable, if we produce good wine and good grapes.—EDITOR.]

EL DORADO, May 26, 1870.

Dear Sir:—I sent you a third article on the Scuppernong which I looked for in April or May No. It has not appeared however.

There are spots of blight or mildew, which appeared on my vines, (the leaves)—all kinds—on the leaves of the elm, and I notice them on the leaves of the black haw, and some apple trees. These spots first appear white, then turn brown, die and crumble out if rubbed. What is the cause? Have you any remedy? Is it something in the dew drops? Is it with you.

The late freeze this Spring (15 April), nearly killed most of the bunch grape vines, as they were full of sap and forward. It had the same effect on the Flowers grape, a species of the Bullace or Muscadine family, as they also were quite forward in putting out. The Scuppernong being later, does not seem to be affected. The rot at this time, although the fruit is fully set on the early kinds of bunch grapes, has not made its appearance, owing I think, to the very dry spring so far, but those kinds of bunch grape which were injured by the freeze seem unhealthy, both in vine and fruit, so that there will be a very poor crop—if the rot do not appear)—both in quantity and quality. I am going ahead with my Scuppernong vineyard (*Nil desperandi*), your opinion notwithstanding to the contrary, of the Scuppernong as a wine grape. Respectfully,

J. H. CARLETON.

[The brown spots are evidently mildew. It is caused by rapid change of temperature, and murky weather. Dusting sulphur on the vines will cure it, but it is a very troublesome process which you will hardly follow.—EDITOR.]

(BOHEMIA-VINEYARDS.) TOWN POINT,
P. O. CHESAPEAKE CITY, CECIL COUNTY, MD. }
June 6th, 1870. }

MR. GEORGE HUSMANN:

Dear Sir:—The cuttings you sent were fine and are growing wonderfully in open air. I had cut them up to two and one eyes, and find that even single eyes of Cynthiana and Herbeumont have rooted; as we have had warm rain showers the last two weeks. Mr. Hipples Concords which were severely hurt by the hail, are in

full blossom the remaining first, as well as newly started second, and even some of the third buds have fruit; I think there is not much lost, the fruit is only not so evenly distributed on the vine, as by a regular start.

Ives and Creveling, no fruit on second bud. Clinton and Diana some. The varieties of grapes you send, give full satisfaction.

Please state through GRAPE CULTURIST, if the husks of the Cunningham grape, after slight pressure for white wine, then Chaptalized say with 80 gallons of sugar water to about 110° or 115° substituted for every 100 gallons of pure juice, after complete fermentation on the husks—would it not make as dark and good a red wine as Chaptalized Cynthiana?

Yours truly,

OTTO C. T. PFAHL.

[We are glad to hear of your success with the wood we sent. Will you not give us, through the GRAPE CULTURIST, your method of starting and managing them. Herbemont and Cynthiana, are generally very difficult to grow from cutting.

Your report about Mr. Hippes vines only confirms our doctrine that the grape is the most reliable of all fruits. We wish him joy of their recovery.

Chaptalized Cunningham makes a very good wine, but more resembling Madeira, of brownish color, while the Cynthiana makes a dark red wine, of the character of the choicest Burgundy. Thus you will see that they are entirely different, though both very fine.—EDITOR.]

Oswego, Oregon, May 30, 1870.
MR. GEO. HUSMANN:

Dear Sir:—My friend A. B. Roberts, of Walla Walla, had the GRAPE CULTURIST sent to me last year. I like it, and wish it continued. The four varieties of Rogers' Hybrids I received of your company last fall will I believe all grow, though some of them are slow in starting. I don't see why it is that the rooted cuttings we get from East of the mountains are so small compared with those we make here. I am done with the first stage of summer pruning. Followed your instructions as near as I could. But in this country the shoots at 6 inches have not developed more than half the fruit bunches, consequently they must grow longer before they can be pinched. Among all the vines I have (some 40 kinds), none grow faster than the Delaware, some shoots of which have grown 4 feet. It is also as great a bearer as any. It seems to be perfectly at home here.

I wish to try some of your best wine grapes that will ripen here. I think the Cynthiana will ripen as well as Nortons & Louisiana. I have Herbemont, Lenoir, Pauline, and Lincoln, alongside of the Delaware, Allens Hybrid, Concord, Isabella, Royal Muscadine, White Sweet water &c., but they do nothing compared with these latter kinds, but I shall give them another trial on the south side of a high butte or hill, and if they do no better there I shall discard them entirely. Most if not all our foreign grapes have been brought here originally from California, and their nomenclature is all in confusion. As I expect to raise grape vines for sale,

I am very desirous of getting the names right, and to that end design sending to some of the most intelligent propagators of the foreign grape in New York for a full list of them. Do you suppose I shall succeed in my object, or are they mixed up there too. The grape is almost in bloom here, and there is prospect of an abundant crop. The vines are looking splendidly and growing rapidly. I find the Iona to be the slowest grower I have, but the vines were imported from Dr. Grant, and I think the young vines will do better. I will report progress during the season.

I will contribute regularly to your journal if you wish it; am just commencing a vineyard and expect to increase it yearly if I can find market for my grapes.

Yours Very Truly,
A. R. SHIPLEY.

[Thanks for your interesting communication, while others, we hope, will follow. I think that all our varieties of grapes would ripen with you, if they will succeed at all.

We do not doubt but you can get a correct assortment of foreign grapes, if you apply to a reliable firm at the East.—EDITOR.]

BLOOMINGTON, Ill., June 1, 1870.

GEORGE HUSMANN, Esq.:

Dear Sir:—I made about 1500 gallons of wine in 1868, mostly of Concord, some of it very fine, and some got chilled and did not work well. I should like to have somebody familiar with wine making examine it and tell me what to do with it.

Do you ever come up this way?

Should be very glad indeed to see you. Let me hear from you.

Our vines this year are doing very well, and with the rest of the season satisfactory will give us an abundant crop.

Hoping soon to hear from you, I remain, Very respectfully yours,

K. H. FELL.

[We think the only thing you can do with the wine you report "chilled" is to throw it on the husks of grapes after you have pressed them, this fall, and ferment it in a temperature of about 80°. Let it ferment thoroughly, then press it, and you will soon have wine of it, if it is not already spoiled otherwise. We are so busy here that we find but little time to travel. Should we come your way, will avail ourselves of your invitation.—EDITOR.]

SUNNY SIDE, June 1, 1870.
MR. HUSMANN:

Dear Sir: Being but a beginner in grape cultivation, I would like to ask a few questions on the modus operandi of grafting: First, how would the Herbemont do grafted on the Clinton; the situation in which it is planted being southern exposure, warm, rocky, newly cleared gray land, with red subsoil? I live near Charlottesville, Va., 38 deg. latitude. Second, if the Herbemont will not do, what kind would you recommend? Third, my vines were set out this spring, would you graft next spring, or the spring after? Fourth, which is the best month to graft in?

As before said, I am but a beginner, but will give my experience if it will be acceptable. In the spring of '68 I planted two hundred and seventy-five vines, namely, Concord, Clinton, Ives,

Hartford Prolific, Diana and Delaware. The first four grew well, making from five to ten feet of wood, which ripened well. The roots of the Diana got dry before planting, and but few of them lived. Delaware grew tolerably. All have plenty of bloom, except the Ives. In '69 planted Concords, Hartford Prolific and Delaware. My Delaware of last year's planting have grown five feet this spring.

I have *Husmann on Grapes and Wine*, which I follow; also the GRAPE CULTURIST for '69. Enclosed you will find the price for the CULTURIST, which you will please forward. Direct to W. R. Duke, Charlottesville, Albemarle Co., Va. You will oblige me by giving a list of the varieties that will grow from cuttings, as I have never seen one. In my first planting I bought twenty-five Clinton and twenty-five Norton, which Mr. Motop pronounces to be Clinton. What ought to be done with the vendor?

Very Respectfully,

W. R. DUKE.

[We refer you to the several articles on grafting in GRAPE CULTURIST, especially to those in February Nos. 1869, '70. The Clinton is the very worst stock we know of to graft upon. It seems like if the Aestivalis and Labrusca varieties will not readily unite with its stock; and, besides, it sucks so terribly that the natural sprouts must be taken off every week. You had better now leave your stocks until next spring, as it is getting most too late. Before that time we will give the result of a new method we have practiced lately, and which will much simplify the process, if it succeeds. We have some fine grafts growing on the Clinton, but would much prefer the

Concord, Hartford, or Ives as a stock. Before fall we will give a list of varieties which grow readily from cuttings, as well as those difficult of propagation. We can give you no advice about what to do with the dishonest dealer. You had better not buy again, except from reliable persons.—EDITOR.]

BOHEMIA VINEYARDS AND FRUIT FARM, }
TOWN POINT, CECIL CO., Md. }
May 16th, 1870. }

MR. GEORGE HUSMANN :

Dear Sir:—We experienced in our vineyards, and through a small scope of country around us, on last Tuesday, a most terrific hail storm, lasting some 15 minutes, and making sad havoc in our vineyard, our vines had made shoots ranging from 6 to 12 inches in length, and showed a splendid array of fruit. But alas, the short space of fifteen minutes entirely changed the aspect; the vines were completely riddled, fully three-quarters of the fruit being cleaned off, and shoots destroyed in every form. As the second buds however had but in a few cases started we hope that the check which the vines received from the storm, and pinching the remaining shoots, will push them vigorously, and probably supply the place of the destroyed fruit. They are principally Concord vines.

Do you think that a soft well water free from limestone, will injure any of the qualities of wine if used in gallizing *only* moderately. Should our vineyard be able to recover the effects of the hail storm, we anticipate being able to make a good report as well as a good show this fall.

Please let me have your advice as to what kind of wood to have casks for white and red wine, made out of. If

there is any preference between oak and poplar. Yours truly,

EDWARD T. HIPPLE.

[We are sorry for your misfortune, also that your letter came too late for our June No. We trust your vines will recover, and produce a fair crop yet, from the secondary buds.

— We use only white oak for casks, and do not think poplar will do, as it swells and shrinks too much. We do not even like it for vats on that account, and prefer clear white pine, which, when without knot, contains very little resin.—EDITOR.]

FRIEND HUSMANN:

Last winter when on a visit to Hermann, I accompanied a friend, to see Mr. Langdorfer, the originator of the Hermann Grape. There had the pleasure of tasting wine of that variety, as also of the Martha and other kinds.

He has great faith in the Martha; "so have I," as also in his seedling, the Hermann. The wine of the latter was still sweet, showing to my notion, that so heavy a must as that yielded last fall (115°) I think needs a higher temperature to ripen than his *Grotto* cellar will allow of, when the cool weather comes on. The Martha and other vines were more advanced, and all promised well.

When the Hermann must has a fair treatment, I am satisfied it will make one of our best wines, while the vine and grape is all that could be wished for in point of health and vigor. When I look at the vine it reminds me of a handsome *well dressed lady*, just stepped out of the dressing room.

While there I also witnessed the clearing of wine by forcing through paper pulp. The wine was quite cloudy when put in, but came out clear.

Now a question arose in my mind, which some of those who have had experience will please answer, whether

this wine will keep as well as though it had clarified itself by time, and in the ordinary course, or whether there still remain ingredients therein to cause trouble in keeping it afterwards. A reply to this query will oblige.

Yours truly, SAMUEL MILLER.
BLUFFTON, Mo., June 5, 1870.

[We can give our friend our ideas about mechanical clarification of wines by filtering, etc. We think if the wine still contains unfermented sugar, filtering will clarify it for the time being, but it will be subject to renewed fermentation again, as the particles of lees are so fine that they remain suspended in the wine, even when it *looks* quite clear and bright. If wine is thoroughly fermented it will fine naturally, and filtering becomes unnecessary. If not, filtering will only clarify it for the time being, and it will become cloudy again.

We fully agree with friend Miller about the value of the Hermann. We have no grape in our whole collection, comprising some 100 varieties, which we value more highly, which we think more productive and healthy, or producing a better wine. We speak advisedly, having watched the grape since its origin, and are willing to stake our reputation on it *as a wine grape*, for our State at least.—EDITOR.]

TOBIAS WEIGOLD, COOPER,

1618 Jackson Street, St. Louis, Missouri.

Offers his services to Wine Dealers, as manufacturer of all kinds of casks, fermenting vats and cellar apparatus. He guarantees satisfactory work and lowest prices. Refers to some of the principal wine dealers in the State of Missouri, for whom he has made casks and vats for a number of years, and especially to the Bluffton Wine Company, No. 22 South Main street, where casks and vats of his manufacture can be seen by those interested in the business.

feb'69-tf

GREAT WESTERN GUN WORKS, NO. 179 SMITHFIELD STREET, PITTSBURGH, PA.

Double-Shot Guns, \$9 to \$100. Single-Shot Guns, \$3 to \$20. Rifles, \$10 to \$50. Revolvers \$6 to \$20. Discount to Clubs. Send stamp for price catalogue.

 Army Guns and Revolvers bought or traded for.

june9-3m

HAVE YOU GOT MARTHA?

GRAPE VINES AND SMALL FRUITS.

[Nursery Established in 1857.]

A splendid stock of Vines and Plants are offered the coming Fall and Spring, including nearly every variety known to be of value. The popular and white Grape

MARTHA, OR (WHITE CONCORD,)

In large or small quantities. Also, Arnold's new Hybrids, Eumelan, Walter, Weehawken, Christine, Hine, and all valuable numbers of Rogers' Hybrids; also, Delaware, Iona, Isabella, Concord, Hartford, Ives, Norton's Virginia, etc., etc., in all about one hundred distinct varieties.

Kittatinny Blackberries and Clarke Raspberries in large quantities, Jucunda and Charles Downing Strawberries, Downing's Seedling Gooseberries, Cherry, Versailles, White Grape, and Black Naples Currants, etc., etc.

Send stamps for Illustrated Catalogue and Price Lists to

apr69-tf

GEO. W. CAMPBELL, Delaware, Ohio.

D'HEUREUSE AIR TREATMENT.

PATENTED AUG. 6th, 1867, AND AUG. 3d 1869.

For FERMENTATION and GERMINATION, and for PRESERVING, PURIFYING and IMPROVING of Organic Substances.

Exceedingly useful in Malting, Brewing, Distilling, Baking, Manufacture of Wine, Cider, Fruit Wines, Fruit Brandies, Vinegar, etc.; in Sugar Works, Oil Works, Manufacture of Extracts, Preserves; in Storehouses, Transportation of Grain, Produce, Fruit; Purification of Water, etc., etc.

 Rights for States, Counties, Districts, or Establishments, for sale. Apply to

P. O. Box 6844.

R. D'HEUREUSE, New York.

Bushberg Vineyards & Grape Nurseries.

GREAT REDUCTION IN THE PRICE OF GRAPE VINES AND SMALL FRUITS.

SEND FOR NEW PRICE LIST FOR FALL 1870.

Our ILLUSTRATED DESCRIPTIVE CATALOGUE—"More useful to the Grape Grower than some works of much greater pretensions,"—Am. Agriculturist,—will be sent by Mail, post-paid, for only 25 cents, either in the German or English Edition, as you may order.

Agents Wanted to canvass for orders for Fall delivery. Terms liberal, profits handsome. Posters, Price Lists, etc., gratis. Address,

ISIDOR BUSH & SON, Bushberg, Mo.

GRAPEWOOD: TWENTY KINDS!

Immense Stock, especially of

Concord, Ives, Delaware, Hartford, Iona, Catawba, Isabella, Clinton, Rogers' Nos. 4, 15 and 19, etc.

Cut from Bearing Vines before hard freezing, and stored in frost-proof Cellars.

Very Low for Cash. Price List Gratis.

ALSO, LEADING VARIETIES OF GRAPE ROOT IN STORE.

Can ship South safely at any time.

feb69-tf *M. H. LEWIS, Sandusky, Ohio.*

ZYMOTECHNIC NEWS.

A Monthly Journal

For all Branches of Fermentic Arts—Manufacturing of Wine, Beer, Spirits, Vinegar and Yeast.

THE "ZYMOTECHNIC NEWS" will give a detailed record and discussion of all improvements which obtain publicity, both in the Old and New World. The more important ones of these improvements will be subjected to the most careful tests in the chemical laboratories and technic establishments, amply at the editor's disposal, and the results thus gained will also form part of the communications of the "ZYMOTECHNIC NEWS."

The "ZYMOTECHNIC NEWS" will appear both in ENGLISH and GERMAN, and the yearly subscription for each one of the two editions is but \$1 in advance.

ONLY ONE DOLLAR A YEAR!

All Business Men standing in any practical relations to Zymotechnic Pursuits, more particularly Producers of Wine, Brewers, Distillers, Rectifiers, Wine and Liquor Dealers, Vinegar and Yeast Manufacturers, ought to subscribe for a copy of the "ZYMOTECHNIC NEWS" in order to rest assured that nothing new in the technical appliances of their pursuit will escape their notice. If but once in a while a single item of interest and value to themselves has been made available, the small expense of \$1 a year will have possibly been repaid a hundred-fold in a short time.

All letters and remittances are to be directed to the undersigned.

N. B. Correspondence conducted in English, French and German.

CHAS. H. FRINGS, Editor,

P. O. Box 2,742.

St. Louis, Mo., December, 1869.

202 South Fourth Street.

jan70-tf

Missouri Wines and Plants.

THE BLUFFTON WINE COMPANY

NOW offers to the trade, and to the public generally, its first crop of wines, grown at Bluffton, comprising, of red wines, Concord, Norton's Virginia, Ives, and Clinton; of white wines, Concord, Catawba, Hartford, Delaware, and Herbeumont.

Our wines are of excellent quality, and we are sure that they will give general satisfaction to consumers. Our motto is, "Low prices, good quality, and quick sales;" and Wholesale Dealers in wines will find it in their interest to apply to us. Price lists sent on application.

We also call the attention of Grape Growers to our large and complete stock of plants of all the leading varieties. We shall make it our aim, in our fall trade, to supply our customers with the best of plants, and at as low rates as any reliable firm.

Descriptive Catalogues sent, on application to

WM. WESSELHOFT, Secretary,

BLUFFTON, MO.

PUBLISHED AND FOR SALE

BY

CONRAD WITTER,

ST. LOUIS, MO.

MUENCH, FREDERICK, *School for American Grape Culture*. Brief but thorough guide to the laying out of vineyards, the treatment of vines and the production of wine in North America.

MUENCH, F., *Amerikanische Weinbauschule und Weinbereitungslehre, etc.*

Either one of these books will be mailed free of postage on receipt of one dollar.

HUSMANN, GEORGE, *The Cultivation of the Native Grape and Manufacture of American Wines.*

On the receipt of \$1.50 this book will be mailed to any address.

SCHIMDT, J. A., *The Diseases of Wine*, how to prevent and how to cure them, according to the doctrines of M. Pasteur.

This book will be sent, free of postage, on receipt of \$2.

C. WITTER keeps a large assortment of books treating on the Culture of Grapes and Manufacture of Wines.

Catalogues sent on application. Please address letters,

CONRAD WITTER,

Jan69-11

122 S. E. corner Walnut and Second Sts., St. Louis, Mo.

CHOICE VARIETIES OF
Grape Vines, Strawberry Plants, Raspberry, Blackberry & Gooseberry.

Also, a few Peach and Cherry Trees, the finest growths. Particular attention will be paid to small orders of plants to be sent by mail. For sale by

SAMUEL MILLER, Bluffton, Mo.

THE GRAPE CULTURIST.

VOL. II.

AUGUST, 1870.

No. 8.

AUGUST.

WORK FOR THE MONTH.

But very little remains to be done in the vineyard, if it has been kept in good order so far. Tying the young canes along the upper wires occasionally, and keeping the soil loose, clean and mellow, will be about all that is really necessary to do. This latter is all the more necessary, as August is generally the month of drouth, and the loose mellow soil is the best mulch for the vines.

Most of the varieties will color in the course of this month; birds, foxes, raccoons and opossums will begin their depredations, and must be closely watched. We are far from advising the indiscriminate slaughter of birds, as we think that they do more good, on the whole than harm, by destroying myriads of noxious insects. But the oriole, we confess, taxes our patience to such a degree, by poking his bill into every ripe berry, that we have little mercy on him, especially as we never see him in the vineyard except when grapes are ripe. The best plan to keep them in check is to erect some tall leafless bush in several places in the vineyard. The birds will alight on them before they go into the vines, and a dose of powder and lead may then be applied without hurting the vines. The brown thrush, cat-bird

and cardinal are also much addicted to grape stealing, but we confess that we always wage war against them with a troubled conscience, as we think that the insects they destroy counterbalance their destruction of grapes. But do not shoot our little gray sparrow, the best friend you have; quietly and unobtrusively it slips along among the vines, with its clear eye always on the watch for worms and bugs. Foster and protect him and the pretty blue-bird; they never touch grapes, and only live on insects. We have no mercy on our four-footed predators, however, and if foxes, raccoons and opossums see fit to attack our grapes wholesale, we think ourselves justified in waging war against them with all and every means in our power. One of the most destructive is a dose of strychnine, put on the wing or leg of a chicken, and scattered about through the vineyard. We have killed a whole family of foxes in this way in a single night, and if they partake of these pleasing morsels, the poison acts so quick that they will not get out of the vineyard alive. But of course you must keep your dogs at home while applying it, or they might share the fate of their arch enemies. Where you cannot obtain strychnine, steel

traps and dogs will do good service against them.

When grapes are to be marketed, they should be packed in small, shallow boxes, containing from ten to twenty pounds each. Do not cut them when they are wet with dew or rain. They should be perfectly dry, and all rotten or damaged berries carefully picked out. Cut the stems long, and lay a layer of grape leaves or paper at the bottom of the box, then a layer of grapes packed as tight as you can crowd them, then put on another layer of leaves or paper, on this another

layer of grapes, and cover smoothly and nicely with leaves or paper. The boxes should not be deeper than to hold two layers, say about six inches, and the cover slightly pressed on in mailing it down. They will bear handling much better than when loosely packed.

Get all your casks ready for wine making, your fermenting vats, etc., so that the vintage will not find you unprepared.

We will give some advice about wine making in another article.

THE CLIFF CAVE WINE COMPANY OF SAINT LOUIS, MO.

A SKETCH.

The organization of the Cliff Cave Wine Company took place in January, 1866, under a charter obtained from the Legislature of Missouri just previous to the adoption of the present State constitution. Consequently the stockholders of this company are exempt from the double liability clause which bears so heavily upon all corporations organized under the existing constitution of this State.

Soon after its organization, the company purchased about two hundred acres of land, situated on the bluffs of the Mississippi river, thirteen miles below the city and within the limits of Saint Louis county. An adjoining tract of forty acres was subsequently acquired, making the present domain of the company about two hundred and forty acres.

About one-half of this whole area is well suited for vineyards, the soil

being a friable clay loam, having complete natural under-drainage, and the elevation being high. On the premises is also a natural cave of considerable extent, a portion of which has already been converted into a two-story wine cellar, having a storage capacity of upwards of 100,000 gallons.

Operations on the ground commenced in the spring of 1866, and about eight acres were planted in grapes the first season. Subsequent plantings have increased the number of acres of vineyard to twenty-three, all of which will be of bearing age this season.

The varieties planted are as follows:

Coneord,	- - -	8½ acres.
Norton's Virginia,	-	8 "
Ives',	- - -	4½ "
Hartford Prolific,	-	1½ "
Other varieties,	-	¾ . "

Of the fifty-eight varieties now growing on the grounds of the com-

pany, quite a large portion are of recent introduction. Probably only a very few of them will be found worthy of being extensively planted.

The most common fault with new varieties is their liability to mildew, and the consequent loss of foliage. Among the great number of new sorts which have been brought before the public within the last few years, only a *very small number* are found to possess that degree of hardiness requisite to carry fruit and foliage through the long summer of our latitude, unimpaired.

The Cliff Cave Wine Company do not, therefore, look to the experimental portion of their vineyard as a probable source of immediate profit. Aside from the great interest which attends the testing of new varieties of fruit, those having the direction of the affairs of the company have felt

it to be their duty to contribute their share toward determining what varieties of the grape were most likely to become of real value to the vintners of this portion of the Mississippi valley.

The propagation of grape plants for sale is now quite an important branch of the business of this company, and it is intended to make this interest a permanent department.

Their proximity to the city of Saint Louis enables the company to choose between selling the grapes in market, and turning them into wine. Up to the present time a large portion of the fruit has been marketed in Saint Louis, at satisfactory prices. A small quantity of wine was made in 1868, and last season (1869) that portion of the crop which was converted into wine yielded about 2,800 gallons, mostly of the Concord variety.

C. W. SPALDING, *President.*

CAN WINE BE AERIFIED WITH IMPUNITY?

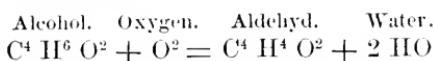
The above question is naturally suggested by the few remarks made on my essay on wine racking, published in the June number; and when the same are made by an eminently practical mind, like Mr. Geo. Husmann, the new theory is worthy of further elucidation for fear that, being in conflict with the practical experience of the older wine countries, it might cause fatal mistakes with vintners, in their haste to put it into practice, before our American experience has fully demonstrated that with us the reverse is true: that wine can be aerified with impunity; and here, when I say *wine*,

let it be well understood that I do not mean *must*.

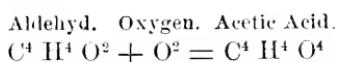
Cursorily, and as briefly as the subject will permit, I propose to open the discussion by submitting a few of my doubts, trusting that our practical and observing vintners will follow with a record of their experience; we may then, perhaps, in time, arrive at a near solution of this most important question.

Supposing that the aim of the vintner is always to obtain a wine of superior quality, let us first consider the chemical change which takes place in wine by the free admission of air; it

is this: the alcohol is oxydized and forms aldehyd, then acetic acid, when the wine is soured and turns to vinegar. Chemically speaking, the change occurs thus:



In the first place a chemical equivalent of alcohol endures the action of 2 equivalents of oxygen, the product being one equivalent of aldehyd plus 2 equivalents of water. The aldehyd being produced, it in turn absorbs 2 more equivalents of oxygen and forms acetic acid.



This change meets with no difficulty, even at an ordinary temperature, and a few drops of wine left over night in a wine bottle will satisfy those vintners who have not as yet observed this transformation.

The fact that the free admission of air, by oxydizing the gluten, would soon clear wine, had not escaped my observations; but I was also aware that there was no better or more certain way to make vinegar, this aerification being always accomplished at the expense of the quality of the wine, which soon loses, when prolonged, its oily or velvety feeling, its vinous aroma and smoothness; and without this last and precious quality wine can have no charm nor worth. This is why, since my essay was read before the Nauvoo Grape and Wine Growers' Club, in the winter of 1868, I have found but few reasons to alter my views, except perhaps on rule 5, and that only in special circumstances, such as the need of quick sales re-

gardless of quality, or when the first fermentation has been very imperfect or sluggish, otherwise it is always to be feared that the quality of the wine will suffer. For these same reasons I would be loath to discard my rules 6 and 7: who is it that has not witnessed the fact when drawing wine, that a bucket left exposed over night, or only a few hours, had contracted a flat, vapid or insipid flavor, quite disagreeable to the taste?

Wine, when properly fermented in the start, needs but few rackings to insure its stability. When I advanced that two rackings well done were sufficient for the first year, I in no way meant to imply there should be no more rackings afterward, to free it from the fermentable matter: I hold, on the contrary, that there should be more, and at least one fining before bottling.

Owing to the presence of carbonic acid, wine can stand a number of rackings; but these should be quick, and with faucets that will not spit, but flow in an unbroken column, then the evaporation of this acid is slow, and in like proportion excludes the absorption of oxygen; but the rose of a watering pot, being just the thing to free the carbonic acid, must be a dangerous tool to rack wine with, unless it be one that has as yet fermented but little, and has consequently next to no alcohol; otherwise, was not the quantity of oxygen required to make acetic acid large, it would make vinegar at once.

It is these facts which have suggested, in Europe, so many different means of racking wine with the exclusion of air. But whilst wine fears

aerification, it is the reverse with *must*. It is now some ten years that I became aware of the fact, while attempting to make a dark red Isabella in a perfectly closed tub. Fermentation is the most perfect when the must has been well oxygenized, and in this respect especially do I hope much from the D'Henreuse air treatment.

E. BAXTER.

GOLDEN HILLS VINEYARD, NAUVOO, ILLS.

[We think our correspondent does not exactly understand the question involved. The D'Henreuse air treatment will not be needed for *wine*—that

is, *wine complete and finished*. Nor do we advise to rack such wine through the rose of a watering pot. But so long as wine contains *ferment*, it can hardly be called *finished*; and it is only to unfinished wines that air treatment should be applied. We publish in this number another article on this important subject, which will tend to show our correspondent that air treatment is also practiced in Europe. We are glad to have this subject so thoroughly discussed in our pages, as we think it of vast importance.—EDITOR.]

AIR TREATMENT AGAIN.

That most influential and well conducted German quarterly journal on grape and wine culture, the *Annalen der Oenologie*, Carlsruhe, Baden, publishes detailed tables and highly satisfactory results of systematically conducted operations with air-treatment on must, by its principal editor, Dr. A. Blankenhorn, and numerous other parties of high standing in autumn of 1867 and since, and enthusiastically recommends the process. There is no doubt that its use will soon be general in the German wine countries. Air-treatment was employed there on the must at about 65° F., and previous to fermentation only. The apparatus used is named Prof. v. Babo's Patent Must-whip (Mostpeitsche), which consists in a vertical hollow shaft, provided with hollow perforated arms below. By gearing and crank the shaft is made to revolve quickly, so that the air is urged through the hollow shaft, and

impelled through the perforations of the arms into the must. The whole is attached to a plank placed over a tub or tank. The construction certainly is ingenious, but seems to be more complicated and less apt to be kept perfectly clean than the simple perforated pipe or mouth-piece, connected by hose, etc., with an air force-pump, the mode recommended by the patentee of the American air-treatment. The v. Babo's machine can only be used on must or wine in tanks, not to hasten the fermentation of the must while in casks, and could not very well be employed for other purposes also, like the pump, for instance, for the purification of foul water in cisterns, etc., or for transferring the wine merely by hose or pipe, without passing through a pump, from cask to cask, by pneumatic pressure on the wine. The price of Professor v. Babo's machine will probably exceed that of pump, etc., the power requisite

to work it certainly does by the same action produced. The American patent covers the use of either.

The above journal (page 209) also mentions the efficiency of air-treatment to quickly clarify wine, even if of bad taste and ropy. The wine was made perfectly clear and of good taste in a day, after half an hours' air-treatment with the isinglass solution. Similar results have been obtained previously in California wine-cellars, where the clarifying (Schönen) is now done entirely by air-treatment, in place of the commonly used rod.

In an analysis and official report of October 1869 by the chemist of the Agricultural Department, Washington, on California air-treated wine of Nov. 1868, very favorable to air-treatment, the unusually large amount of acid (as tartrate of potassium and of little taste) is noticed by the chemist in the following manner, to-wit: "It may be that the process of aeration results in the formation of acid at the expense of extract." This, however, certainly is a mistake; no test of the must before fermentation was made for acids, while the taste of the wine reveals no acid; on the contrary, it is too free from it to satisfy those accustomed to German, French or North American wines. A practical wineman of high standing of Toledo, Ohio, writes to the patentee of air-treatment the following in regard to the above: "We have seen an analysis and official statement by the chemist of the Agricultural Department, Washington, about air-treated California wine, and we think that by an obvious inaccuracy therein, it may give rise to an impression injurious to your air-treatment. No test for acids appears to

have been made on the must, the wine from which is said to contain an unusually large amount of acid, and which, the chemist surmises, may be the result of air-treatment. Our experience does not corroborate such suppositions. We have employed your air-treatment in spring, summer, and again in fall 1869, on large quantities of wine, invariably with beneficial results, to accelerate the fermentation and to obtain a wine of superior flavor. We have also ascertained the amount of acid in the must before fermentation, and also in the wine obtained by air-treatment from the same must, and find the same proportion in both, proving that no acids have been formed by this process, or the character of the wine injuriously changed thereby. We have perfect confidence in your air-treatment."

The French chemist, Pasteno, found rather less acid in wine fermented with previous aeration, than in some from the same must fermented without aeration.

R. H.

[The following is the official statement of the Chemist:—EDITOR.]

OFFICIAL REPORT OF THE DEPARTMENT
OF AGRICULTURE AT WASHINGTON, ON
WINE MADE BY D'HEUREUSE'S AIR
TREATMENT.

LABORATORY OF THE DEP'T OF AGRICULTURE, {
Washington, October 29, 1869. }

HON. R. T. McLAIN, Acting Commissioner:

Sir: Having examined the wine sent by R. d'Heureuse, Esq., of New York, I have to report as follows, concerning its chemical constitution, and the results of his patented process termed "Air Treatment." The wine, as received, contained:

Absolute Alcohol, by weight..	9.76 p.c.
“ “ “ by volume..	12.18 “
Equivalent to proof per cent...	21.24 “
Grape sugar.....	0.05 “
Acid, calculated as dry tartaric	1.70 “
Extract	1.84 “
Ash	0.26 “

This analysis presents some points of interest. The wine forwarded for examination presents all the characters of a wine of some years' age, while the evidence is sufficient to show that it was made from the vintage of 1868. The aged character being communicated by the application to the must of the process patented by Mr. d'Heureuse, of New York, the results of which are, that the amounts of sugar and of extract are very small, and that the wine is perfectly clear. Its fermentation is complete, and it will, perhaps, undergo little further change in cask. The amount of acid present in the wine is large, amounting to nearly 1,200 grains in the gallon, or double what is occasionally present. *It may be that the process of *uration* results in the formation of acid at the expense*

of extract ; the latter contains some albuminous matter, so that the process has not wholly removed the protein compounds. Yet, as the sugar is almost wholly absent, but little further saccharine or acetous fermentation can occur.

The process of Mr. d'Heureuse is one which appears to be of *immense value in the manufacture of wines*, as placing it more under the immediate control of the manufacturer, and suffering it to depend less on the circumstances surrounding the wine vats, and also regulating the process of fermentation. The fact alone that it *saves two years* in the period of fermentation, (*i. e.*, complete production) of wines from the grape, is sufficient to recommend it to wine makers.

Very respectfully,

THOMAS ANTISSELL, *Chemist.*

[The evidence in favor of air treatment seems to be of so general and conclusive a character, that we think all of our readers who make wine should give it a trial during fermentation. We feel convinced of its utility, and shall try it on a large scale.—EDITOR.]

QUINCY WINES.

We had the pleasure of receiving, some time since, samples of Concord and Delaware wine, made by Mr. J. L. Moore, of Tower Place, Quincy, Ill.

The Concord was a good white wine, yellow, mild and pleasant, with just enough of Concord flavor to plainly show its origin; a little less of acidity than we would like, but perhaps all the more suited for general taste. It was yet somewhat immature, but even in its present stage, not

“hard to take.” The Delaware was beautifully bright and clear, of fine straw color, not very heavy for that variety, but quite enough of body, good flavor, and altogether a creditable specimen of Mr. Moore's skill in handling wines.

We are glad to see the manifest improvement in our native wines from year to year. Mr. Moore should have no trouble in disposing of such wines readily, at remunerative prices—[Ed.

CANE AND STARCH SUGAR, AND THEIR USES IN THE MANUFACTURE OF WINE AND BEER.

(Concluded.)

From Indian corn an excellent article of starch sugar can be prepared, which will yield alcohol one-eighth cheaper, and equally as pure as that from cane sugar. It is therefore a matter of surprise that in this country, where industry is so highly developed, the manufacture of starch sugar has barely been commenced. Up to the present time only a few small establishments are concerned in this manufacture, so important to the zymotechnic arts: by far the greatest part of the starch sugar now consumed here is—*imported*.

Ever since the introduction in Germany, of the practice of adding sugar to must naturally deficient in that ingredient, in order to produce a drinkable, spirituous wine, the manufactories of starch sugar have sprung up like mushrooms. More than a hundred of them are engaged in the manufacture of the article in question from *potatoes*, being the cheapest source available to them; and they enjoy a constantly increasing custom on the part of wine-growers. Excepting only the Bavarian Palatinate, where the use of “grape sugar” is prohibited, we find depots and agencies of these manufactories in almost every wine-growing neighborhood, while just before vintage-time the local newspapers are crammed with advertisements recommending “The best of Grape Sugar”—“Chemically pure Grape Sugar”—“A No. 1 Grape Sugar,” &c.

It is curious to note that in *this* country it is not so much the wine-

growers as the *brewers*, whose demand for this article has already produced a regular importation movement. To ourselves this is next to incomprehensible. It is only in case of *exceptionally high* prices of barley, and when no other cereal is available as a substitute, that the use of starch sugar in brewing can be justified.

Barley contains on an average 57 per cent. of starch and cognate substances. These pass into the wort, partly as sugar, partly in the shape of dextrine (gum). The relative proportions of these ingredients vary in accordance with the method of brewing; but experience teaches that on an average, one bushel of yields about 12 pounds of sugar and 15 pounds of dextrine. A portion of the latter substance is further transformed into sugar during fermentation, so that a bushel of barley represents, on an average, 16 pounds of sugar and 11 pounds of dextrine (gum.)

Both, dextrine (gum) and sugar, are equally essential to the brewing process. The latter furnishes the alcohol, without which no beverage can be called spirituous; while the former constitutes almost the entire extractive matter, or *body*, of the beer, which is one of the chief distinguishing features between beer and wine. Now it is true that all (commercial) starch sugar contains a certain amount of dextrine—the more, the poorer quality; but this portion would be insufficient in case a *good* article were used,

while in the contrary case it would be paid for at an extravagant rate.

Imported potato sugar of good quality, containing some 15 per cent. of dextrine (gum,) costs about 12 cents per pound at New York. Maize sugar of equal purity can be furnished here at 8 cents per pound. Twenty pounds of either article, costing respectively \$2.40 and \$1.60, would yield 16 pounds of fermentable sugar and 3 pounds of dextrine (gum,) while a bushel of barley will yield not only 16 pounds of sugar, but 11 pounds of dextrine or gum besides. Thus starch sugar can be added to beer wort only in small quantities, unless when it is desired to impart a vinous character to the beer. When the latter object is not in view, the best substitute for barley will always be found in maize or some other cheap grain.

Not so in the manufacture of wine. For this purpose, good starch sugar, containing not exceeding 15 per cent. of dextrine, is decidedly preferable to cane sugar. A pound of the latter, of the quality suitable for wine manufacture, costs at least 15 cents; whereas, as just stated, good starch sugar from maize can be sold at 8 cents. Now as 5 lbs. of starch sugar

are equivalent to 2 pounds of cane sugar as regards their yield of alcohol, the balance is altogether in favor of maize sugar, to-wit: 4 pounds cane sugar at 15 cts., \$0.60 5 pounds grape sugar at 8 cts., \$0.40 The 15 per cent. of dextrine (gum) contained in the maize sugar will (according to the usual proportion of sugar added to must) increase the amount of "extract" in wine only by a few per cent., and will tend to give it the "monthly" taste ("body") which in meagre wines, already fermented, is sought to be produced by the addition of glycerine.

Enormous quantities of cane sugar are already being consumed in the wine manufacture in this country; so that even as a consideration of national economy it is highly important to supply in *maize sugar* a partial substitute for imported *cane sugar*.

In a like manner the *South*, more particularly, might furnish a very cheap cane sugar, whether in a liquid or solid condition, and that answers all the requisites of the fermentic arts; provided it be free from nitrogenous, mucous substances; and which momentous difficulty the recent technical progress offers the ready means to overcome.

KEEPING GRAPES UNDER GROUND.

FRIEND HESMANN:—Many years ago, while in the nursery business, a customer wanted some vines of me, and while they were being dug up he asked me if I had kept any grapes over winter. This was in March. Of course he got a negative reply. Well,

said he, when I come next week for trees I will bring you some along. The thing seemed but a joke to me at the time, but of course I thanked him for the kind offer. True to his promise, when he came a week or ten days thereafter, he brought me some. Not

a few berries as might have been expected, but at least five pounds. They were Isbellas and Catawbas, perfectly plump, sweet and fresh, although most of the berries had dropped from their stems. With the exception of a very slight earthy taste, they were certainly excellent.

The question, of course, was asked, how do you keep them thus? The reply was, that in the fall as late as the cold will admit, they were gathered in a clear day when perfectly dry; a box about eight inches deep was taken; a layer of green leaves was taken from the vines and laid on the bottom; on these a layer of grapes, then a layer of leaves again, until the box was full, finishing with a layer of leaves. Put the lid on tight and bury

deep enough to escape the frosts of winter. Of course it must be where water cannot settle into the box.

The stems of those grapes were quite fresh when given to me. The man told me his father-in-law had kept them thus for years. Why I never tried it is now a mystery to me; but if spared until fall, will do so, I think.

Yours truly,

S. MILLER.

BLUFFTON, Mo., June 1st, 1870.

[We have often dug up bunches of grapes on layers, late in the fall, when all the grapes on the vines had been frozen long ago, and found them plump, sweet and fresh. We do not doubt the method is a good one, and worth a trial.—EDITOR.]

For the GRAPE CULTURIST.

TRAINING VINES.

MR. EDITOR: I have always thought, and was by this year's experience greatly confirmed in the opinion that we ought to give our vines a sort of foot-stool, that is, one stem or several arms stretching 1 or $1\frac{1}{2}$ feet upwards from the ground, so that no leaves or young sprouts may touch it. Bending down our heads we ought to be able to get a look from under the vines from one end of the row to the other all the year through.

This will enable us to keep the ground clean and pulverized, by the plow and hoe, right near the stems, and a free circulation of the air and, by it, the warming of the ground just around the stems will be insured.

In fact, sometimes we want, for the

sake of renewal, a sprout to come out from or near the roots; but there is no difficulty about that. By properly trimming the upper canes, we may at any time, when needed, have sprouts from the roots. Generally we have too many of them, and though they be removed in the early part of the summer, many of them will grow afterward unobserved, because we can not get a look to the ground near the stems, being nothing but a nuisance. If a new twig from near the roots is wanted, we ought to let it grow the first summer and tie it up; the next year we should rub off the three or four first buds and leave the fourth or fifth to sprout to make a good spur for the coming year.

Another advantage of this plan is, that no clusters will hang down so low as to be dirtied, or pilfered by partridges and omnivorous quadrupeds. Even domestic chickens, otherwise so very useful in the vineyard, will do very little damage to our grapes, when none of them are hanging down lower than 1½ feet from the ground.

The fruit of the vine should hang

from two to four feet from the ground; the new canes should not extend higher than to remain within the reach of our hands, and 1 or 1½ feet from the ground there should be nothing to impede our looks, or the circulation of air, light and warmth.

Brethren of the vintagers’ tribe, just try the plan, and you will approve it.

FR. MÜNCH.

“THAT TAYLOR HYBRID,” AND OTHER GRAPES.

FRIEND HUSMANN: In reply to your friendly inquiry as to grape prospects in this region, and “especially about that Taylor Hybrid,” I have pleasure in saying that the prospects for nearly all varieties are at this date, June 20, unusually promising. They are, without exception, making a good, healthy, and vigorous growth, showing thus far no sign of mildew or disease of any kind. A few of the very early-blooming varieties, such as Adirondac and Creveling, were somewhat injured by late frosts, and are only showing fruit on secondary buds. Concord, Delaware, Hartford, and Rogers’ Hybrids are all looking well, and fruiting abundantly.

Salem, which both mildewed and rotted shockingly last year, appears at this time perfectly healthy.

Martha is all that could be desired in health and productiveness, and is showing larger and more perfect branches than I have seen before.

Even the “celebrated Walter,” which was last year striken by mildew, almost “unto death,” is making, thus far, a clean and healthy growth.

“That Taylor Hybrid” has always

been healthy, and vigorous in growth and passed the terrible ordeal of last season with less injury than Concord, Hartford, or any of Rogers’ Hybrids. Its foliage was very slightly touched by mildew, it showed no rot whatever, and retained its leaves until they were removed by the frosts of Autumn. I believe it to be a decided improvement upon the Taylor, its female parent, and free from its most prominent defects. In growth it is strong and vigorous, but more compact, and shorter-jointed than the Taylor. The foliage is not quite as large; less angular or pointed, and thicker in substance. Its most strongly-marked feature of improvement is, however, found in its uniformly well-set, compact, and perfectly-formed clusters, as I have no variety its superior in this respect. Its berries are also larger than those of the Taylor; oval in shape, and of a delicate purplish or maroon-red color, somewhat like those of the Grizzly Frontignan, its male parent.

The only fear I have as to the success of this hybrid, is that it may prove too late in ripening to be uni-

formly depended upon in this latitude;—and for this reason I have not yet grown a single plant from it—nor have I determined that it is really worthy of dissemination. It however seems to me, that wherever the Taylor is desirable or valuable, this hybrid must prove much more so.

Of the many other seedlings and hybrids which I have been producing for nearly twenty years, I have but very few that I regard as especially promising. Of these I will hereafter give you a more particular account, when I can also send you samples of their fruit; for I always feel a hesitancy about expressing opinions of my own productions, without at the same time affording to others, who can have no partiality in their favor, an opportunity of judging of their correctness.

Two seedlings from the Concord cross-fertilized with Delaware, seem to me quite promising; for they have thus far shown only the good qualities of both parents, *without their faults*. In other words, they have ex-

hibited the freedom from mildew which is found in the Concord; and the exemption from rot which characterizes the Delaware. Both passed through last season in perfectly open exposures, without either mildew or rot, and in the immediate vicinity when Concord, Hartford and all Rogers' hybrids were nearly destroyed. As to character of fruit, &c., they are both black grapes, larger than Delaware, though resembling it in form of bunch and berry; but less in size than Concords. In quality I regard them as intermediate; better than Concord; but not equal to Delaware.

I have also had some interesting experience in raising seedling Delawares, tending to establish, as I think, the purely native character of the Delaware. And I think I have also produced among them one seedling that will prove a decided advance and improvement upon the Delaware both in habits of growth and in quality.

GEO. W. CAMPBELL.

DELAWARE, OHIO, June 20, 1870.

THE COMING MAN WILL DRINK WINE; OR, COMMON SENSE vs. PROHIBITIVE LAWS.

It may be that in our otherwise happy and progressive country, a certain portion of its inhabitants, moulded out of some superior clay, and for that reason—beyond a doubt—going fast ahead of the age, have been, and still continue to grow too pure to live in quiet fellowship with the rest of mankind. Saints need a world of their own, and should rule on earth if not in heaven! I particularly dread those

who say: eat as we do, drink as we do! I am too well aware that there is but one step from the ridiculous to the horrible, and that, if indulged, there may come a time when they will add: believe and worship as we do! In a free country like ours these are facts which should be carefully noted and guarded against, and which make it a necessary duty to be always on the look out, ready for a fight. When an

error or a prejudice has been destroyed, there is ever to be found some knave or fool eager to restore it to life.

From time immemorial, moralists have inveighed, in prose and in poetry, against intemperance or the abuse of strong drinks, nevertheless drinking has always been a necessity cherished by man, and upheld not only by sober and well constituted minds, but even by those whom a sincere faith in the teachings of the scriptures, not only compel us to regard but to follow as the great lights of our holy religion. In proof of my assertion I could, if I so desired, take you as far back almost as creation, but this might be rashly tampering with your powers of endurance. I will not prove thus cruel, and without looking further back in the annals of the world than the time when the earth was flooded, I will simply call your attention to the fact, that the only man whom the Lord considered worthy, and singled out to replenish the world, was him who at once set to replant the vine, Noah! if I must call him by name, the patron of all true vineyardists.

My time being limited, a wide leap will bring us down to that worthy man from whose loins sprang the Messiah. What will our modern temperance men say when, by turning to that book of books, to which all professed christians look to as a moral guide, they find in the 104th psalm that "God sendeth the springs into the valleys to give drink to every beast of the field and wherein the wild asses quench their thirst; that he causeth the grass to grow for the cattle, and herb for the service of man: that he may bring forth food out of the earth, and **WINE** that maketh glad the

heart of man." Can there be a reasonable doubt but that it was intended, in the beautiful and admirable organization of this world, that wine should be the drink for the superior and rational being, man, and water the drink for wild asses? Perhaps the chief reason of immature temperance men for exalting water above wine is, that they consider themselves as members of this last mentioned class of animals; if so, as all created beings have a right to their own opinion, and should act according to their nature,—reasonable men cannot object; the motive of the reason is good, and should receive the due consideration of all the charitably disposed. But I wish to insist upon the fact that whilst calling themselves christians, they do not appear to realize that they are warring against Providence, seeing that in obedience to the stern law of a misguided philanthropy, they are continually rejecting the favors that he has and is abundantly throwing upon them. I ask of all right thinking men if it is not better assuredly to be on the side of Providence against the recent water drinkers than on the side of water drinkers against Providence?

The great Creator, who has provided so wisely and abundantly for all his creatures, "grass for the cattle and **WINE** that maketh glad the heart of man, and water for the asses," knows what is best for us infinitely better than we do ourselves, all politico-religionists included! And there can be neither sense nor merit, nor even sound statesmanship, I take it, in churlishly refusing to partake of that ample entertainment, sprinkled with delicate perfumes, garnished with roses, and crowned with

the most delicate fruits, which we know were not only specially prepared for us but also made ready, as nearly as geologists can judge, for the appointed hour of our appearance at the feast.

This we also know, I might add if it was necessary, that when the Divine Man came into the world, unlike the modern water men, he did not refuse the temperate use of any of these luxuries, not even of that "manufactured wine" with which he replenished the empty jars of the publican, while a guest at the wedding of Cana. This happened at the beginning of a short but eventful life, sacrificed for the salvation of the world. Was it an error of youth atoned for in after-life, and was the use of wine ever afterwards deprecated by him? The curious reader will find the answer by turning to what is called the institution of the holy supper, in Matthew, Luke, or Mark, chap. XIV., v. 23, 24 and 25. It is evident from what is there contained that it never entered the mind of Christ that drinking wine was a sin, a hateful sin to be severely reprobated, forbidden or punished. Yet, with these facts to stare them in the face, our new-fangled christians know better than Christ, and are determined to improve upon him. Here is what a set of these "know betters," an influential religious organization in the temperate State of Iowa, have unanimously

"Resolved, That the use of anything containing intoxicating properties, in the celebration of the Lord's supper, is a perversion of that solemn ordinance, and ought to be abandoned for ever." And this is called a "Christian and right movement" (!)

It may be right where there is *might*

to enforce it, but please leave the "Christian" out, *that* it never can be if you believe the apostles.

Is it not safe to infer that these men belong to that class who, in Matthew, 11-19, called Christ a "wine-bibber?" Are they not, by implication, repeating the same charge made by the unbelievers? O Lord! what follies are perpetrated under cover of Thy name.

Let us now turn our attention to the great gun of these modern, not modest, christians, and see if it will not go off with a fizz. It is to be found in the 35th chapter of Jeremiah, and consists in the recommendation of Jonadab to the Raehabites not to drink wine, neither build houses, nor sow seeds, plant or own vineyards, the better to enable them to reap the full advantages pertaining to a nomadic life. But as my patient readers all have bibles of their own—or ought to—let them read and digest for themselves; and whilst I shall have the satisfaction to know that they are engaged in a pleasant occupation, it will spare me the trouble to write the chapter, with the risk of being accused of quoting but a part.

I will not here do our young Jonadabs the injustice to suppose for one moment that they have the slightest conception of the real meaning of that admirable chapter, God torbid! I know that their zeal, far above their understanding, will not allow them to see in the son of Rechab aught but the only reliable light worth following upon this question. It is true that the second verse—that is, the command of God—is rather in sharp conflict with the third resolution of their own platform, which reads thus: "The absolute prohibition

of the manufacture, importation, and sale of intoxicating liquors for such purposes—prohibition expressed by due form of law, with the penalties deserved for a crime of such enormity." They, no doubt, can reconcile the two,

"Alike, but oh! how different!"

and as I give them due credit for an understanding entirely of their own, I will make no comment.

Nor shall I do my intelligent readers the injustice to think that they need an explanation of the real intent and purpose of Mr. Jonadab, together with the vast difference which naturally must exist between a command from that

gentleman or one from God. I surmise that though there is yet plenty of spare room left in Uncle Sam's domain, there are but few of them ready to abandon their houses, stop sowing seeds, give up their vineyards and drinking wine for the noble purpose of leading a life similar to the admirable and enviable red skins. God keep me from resembling those deep hypocrites who assume that light shines but for them. I know my readers can judge and decide for themselves, and here I rest.

DR. AMPELOS.

GOLDEN HILLS VINEYARD,
NAUVOO, ILL.

REPORTS ON GRAPES.

These are always welcome to us, from wherever they may come, and we are glad to see our correspondents commence early. We hope to get quite a number of them for September issue.

Here, we have some eighty varieties fruiting, about seventy of which are in the Experimental Vineyard under our immediate care. In about thirty acres of vineyards, now bearing here, we do not think we have lost over twenty-five pounds of grapes by rot so far, although our upper vineyards, some ten acres bearing vines, were considerably damaged by hail twice. We may have lost about one fourth of their crop by hail, but they still have a heavy load of fruit.

As a general thing, the crop is larger than any thing we ever saw, especially on the vineyards in the river bottom. The Concord, Ives and

Hartford there on four year old vines, will at the lowest estimate, produce thirty pounds per vine average. On a Franklin vine, four years old, we counted three hundred and twenty-six fine, compact bunches. The Taylor, which generally sets imperfectly, has fine compact bunches this season, and in our experimental vineyard, will average at least twelve pounds per vine. Four years old vines of the Goethe will we think, we rage twenty-five pounds, and even the three years old in the other vineyards have a large crop of beautiful fruit. In fact, all varieties look well, but especially the Maxatawney, Telegraph, Lindley, Massasoit, Wilder, Cynthia, Martha, and, last but not least, the Hermann, covered from top to bottom with its beautiful compact clusters, the very picture of health and productiveness. Mary Ann, Miles,

Telegraph and Hartford are coloring at this date (the 19th of July.) For an early market grape we know of none, which would pay better than Mary Ann. It is the earliest we have; we saw colored berries on it the 4th of July; it is enormously productive, healthy and hardy, always produces fine bunches, hangs well to the stem, and is of better quality than Hartford.

We think it premature however at this early date to attempt a full report. We shall do so in September and October, and hope all our friends and readers will give us their experience in their localities.

We may safely say, however, that to the true friends of grape culture, those who take an interest in its progress, a visit to our vineyards would richly pay, and we hope to see a good many of our friends here, where they will find us ever ready and willing to show them what we have, and demonstrate our advice by actual fact.

EDITOR.

GRAPES ABOUT CINCINNATI.

GEO. HUSMANN, ESQ., EDITOR *Grape Culturist*:

I promised some months ago to act as your correspondent at Cincinnati and keep you posted as to matters of interest in the vineyard in this region. As this is my first communication, I fear you have already put me down as a very poor one. But I will try to redeem the time in future, and besides I can plead a good excuse, for with a hundred acres of grapes planted and half that number in bearing; you will agree with me that I have enough on my hands to keep one man busy, if not to set him crazy. Before pro-

ceeding further I must pause to tell you that we are all happy; all vine-dom in this region is jubilant. Never within the memory of man, was such a crop of grapes seen here. Every thing is glorious, no mildew, no rot, no leaf blight, no vine destroying insects. All varieties are doing equally well. The delicate white grapes, the Rebecca, Maxatawney, Cassady, and others which have always rotted here, are this year perfect; so of the Iona, Isabella and Martha. And the Catawba, our glorious old Catawba; what shall I say of that, perfectly healthy in leaf and berry, and the 12th of July, are we not about out of the woods? Is this prince of grapes not about to be restored to us. I hope so, for among all the new varieties, we have not yet found one that has its favor with the people. [Very natural, the people do not know them long enough. Ed.]

Our season thus far has been just what every grape grower would have, mild and temperate, with no scalding showers, and this applies to the great grape region of Ohio and Kentucky, from all parts of which I have information, and the testimony is universal, that there has been no disease, a great absence of insects, with an unbounded crop. Old Catawba vineyards, that have not had a crop in many years are hanging full; truly the year of jubilee has come!

I am glad to notice that you are giving up a part of your first love for the Concord and dividing it with the Ives. This you will not regret, for if ever a grape was grown, that is perfectly healthy, hardy and productive, it is the Ives. I have counted one

hundred and ninety-six good bunches on a single Ives vine, six year old, in my vineyard the present week, which will make two gallons of wine, and the vineyard will average over a gallon to the vine (on trellis). Besides, Ives wine will sell, while there is little demand for Concord. We are having a great revival in grape culture here, a single vineyard of one hundred acres, mostly Ives; another of one hundred and forty-five acres, mostly Ives and Delaware, besides numerous smaller ones were planted the present season, and the work will be largely increased the next season. This is right, for to make a market for our wines; to make our wines popular, we must make more of them and sell them cheaper. Our mission is to make this a wine drinking, instead of a whisky drinking nation, and to do it, we must increase the production at least two hundred fold. We must bring it within the reach of all; we must make a wine good enough for the rich and cheap enough for the poor. We must give it to the people at such prices, that the mechanic, the drayman, the day laborer can have a bottle of wine for his Sunday dinner, without feeling that he is scrimping his family. I would even make it so cheap that the universal brotherhood of man (and woman too) can have it for a daily beverage. Let the children have it, accustom them to its daily use when young, and they will never become drunkards when they grow up. And for this we must make a light delicate wine; for a breakfast wine, in the place of coffee. And I am not sure Mr. Editor, that I would not add a little sugar and water to the

must, to make it light, pleasant, and harmless to ladies and children. But I must stop. I was going to tell you what varieties we are growing, manner of cultivation &c., but of this in my next.

There is to be a great national exhibition of almost everything held here the last of September. Grapes and wine will be in order. Can't we have a meeting of the American Wine Grower's Association at the time, and all come, and show the world what we can do. Let all bring statistics of grapes and wine; these will be published with the proceedings, and go out to the world. The exhibition will be held under the auspices of the Cincinnati Chamber of Commerce, Board of Trade, and the Ohio Mechanic's Institute.

E. A. THOMPSON.

CINCINNATI, July 12, 1870.

P. S. My Ives are changing color, showing the purple blush; which proves the season to be at least two to three weeks ahead of last year.

[We are rejoiced to hear such good news from the starting point of grape culture, and think it was needed, after so many disastrous seasons. But that a single very favorable season should restore the Catawba—we for one cannot believe, and think our Cincinnati friends would be the last to hope so, after their disastrous experience with that grape. We believe the Goethe and Lindley will supersede it completely in a few years, when they become better known and tried.

Concord is not slow of sale here, in fact it sells faster than any other *red* wine, and we have yet to see the *red*

wine, which is so well adapted to furnish the *masses* with a cheap, pleasant and exhilarating drink. Not even the Ives will do it. We are glad to see that friend Thompson has changed his views about adding water and sugar. We always thought he would come to it. Better reform late than never.

We are afraid Grape Growers will be too busy with their crop to permit those from a distance to attend an exhibition in September. We know it will be next to impossible to us, and we "judge of others by ourselves," although nothing would give us more pleasure than to meet our many Cincinnati friends on so happy and interesting an occasion. [EDITOR.]

—
BADEN, St. Louis Co., Mo., July 13, 1870.

MR. GEORGE HUSMANN, *Editor Grape Culturist*:

DEAR SIR: Reading the different reports in your GRAPE CULTURIST with great interest, I shall endeavor to give you my experience in grape culture. I have about two acres in vines; the situation is rather low, soil heavy and rich loam; the vines were planted in the spring of 1865, 6 by 6 feet apart. I would now plant them 6 by 10 feet. The principal varieties are Concord, Virginia Seedling, and Catawba, besides about twelve more varieties on trial. In 1867 I ought to have had my first crop, but got hardly any on account of too short pruning. In 1868 I had an enormous crop, *i. e.*, of Concord and Norton's; the Cunningham had plenty of fruit but did not ripen it. Last year ('69) I had the prospects of a splendid crop, but lost fully nine-tenths by rot, mostly from the effects

of the wet weather, but also from my own negligence in summer pruning too late. In this summer pruning, according to my experience, the vintner can hardly be prompt enough. This year, so far, the prospects are, in spite of the late frosts, for an enormous crop. I have worked my vineyard well, and am satisfied it will pay.

Now, a little more about the varieties of grapes. I have rooted out this year as worthless on *my* place, the Catawba, Herbemont, Rulander, Cunningham, Blood's Black, Cassady, Allen's Hybrid, Adirondack, Taylor, Rogers' 15, and Iona. The Delaware really don't pay, but as yet I cannot part with that delicious fruit. The Ives are bearing with me for the first time, and are really making a beautiful show; they seem to be hardy, healthy, very productive and prolific; the bunches are also larger than I expected them to be, for they are fully the size of Hartford. The Martha also has a few bunches, but the spring frost nipped it rather severe. Maxatawny is with me a very slow grower; have not yet been able to fruit it. Cynthiana is doing rather slow, but I am confident it is all right, for I have known it for the last ten years, and it has always done well, especially at the vineyard of the late Wm. Poeschel.

Now to my favorite grape, the Hermann. I put out one plant of it in the spring of '68 that has now about seventy perfect bunches, and twelve strong layers (the bunches on the layers were cut off), and as rampant and fine a growth as any in the vineyard. If that vine will bring its fruit to maturity, and if the wine will, with chaptalizing, retain that fine and peculiar flavor, I sincerely believe that it will

be one of our best wine-making grapes. (I have no plants for sale). Spring frosts will hardly ever hurt it, because it starts very late in the season. Another good wine-making grape, I think, is the Goethe, but have not yet fruited it myself.

I am now building a new wine cellar and fermenting-house on your plan, and consider it a decided improvement on the old-fashioned cold and costly cellars. Please let us hear by chance through your *Culturist* your candid opinion of the Hermann grape.

Yours, respectfully,

PAULUS GAST.

[We are sorry that you had to discard so many of our favorites, but suppose you were right, as your locality may not suit them. The Herbemont, Cunningham, and Rulander want a warm soil, intermixed with lime.

We thought we had expressed our opinion of the Hermann often enough (see description in April No. Vol. 1), and can only add that every season gives us a greater opinion of it, as one of our leading wine grapes of the *future*, when mediocrity even will have no chance.—ED.]

LEXINGTON, Mo., June 29, 1870

MR. GEO. HUSMANN:

Thinking you would like to know something of the prospects of the grape crop in this part of Missouri, I drop you a line. My vineyard is one mile northeast of Lexington. I have but a few hundred vines, comprising thirty-eight kinds, mostly Concord. The grape commenced rotting about the 15th of this month. We have had an exceedingly dry and warm spring so far, and fruits of all kinds are

nearly a failure, except the grape. The prospect, up to the 15th June, is, that we shall have the best crop of grapes ever seen in Lafayette county. All varieties are taking the rot except Delaware, Rulander, Allen's Hybrid, Cunningham and Elsinburg. The varieties taking the rot are Logan, Catawba, Hartford, Ontario, Hettie, Concord, North Carolina, Maxatawny, Perkins, Isabella, Diana, Cassady, Mary Ann, Adironac, To-kalon, Roger's Nos. 1, 3, 4 and 19.

The rot commences with a small speck, skin-deep, and gradually enlarges. In five to eight days the berry drops off. The prospect now is that we shall lose about one-fourth of the crop.

Very respectfully,

E. W. BEDFORD.

MACON, Mo., July 11, 1870.

GEO. HUSMANN, Esq., *Editor Grape Culturist*:

One year ago last May I planted a small vineyard of about six acres, mostly Concord, Hartford Prolific, and Delaware, with a few of each of nearly all varieties of grapes recommended for this climate. Most of the vines have been layered this season, but about one thousand Concords that were left for bearing, which are doing finely and from present indications many of them will bear from five to ten pounds of grapes to the vine. The other varieties are doing finely. The cuttings I received from you we grafted in bearing vines, one-half of which are making a fine growth, so that I expect to be able to test them all here next season. My experience in grape growing is so very limited, it could hardly be of much value to

your readers. The ground was prepared by deep plowing and subsoiling, as recommended by you. Then thrown up in ridges eight feet apart, on which the vines were planted; thus making a surface drain between every two rows. The vines are tied to stakes at present, but I wish to adopt the trailing chain culture next season, similar to that described in Messrs. Bush & Son's catalogue. You will undoubtedly confer a great favor upon many of your readers, as well as upon your humble servant, by giving a full description and details of that system of training. I think, for field culture, it has many advantages over any other system, besides being much the cheapest, which you know is a very great consideration with persons of limited means. You have caused the explosion of the idea of the necessity of trenching, thus saving a needless expense; now if you can show a system of training dispensing with the necessity of trellising, you will do a great service to the grape growing interests, and will confer a great benefit upon a great number of poor men. If desirable I will in my next give you the statistics of grape growing in this county, with the soil, elevations, &c., &c.

Very truly yours,

J. A. VROOMAN.

[You will find the trailing chain system fully described and discussed in July, August, and September numbers *GRAPE CULTURIST*, 1869. We think it entirely impracticable here, and have given our reasons for thinking so in the article referred to. We shall be glad to get the statistics.—*EDITOR.*]

THE GRAPE PROSPECT AT LOCKPORT, NEW YORK.

A few words will inform you of our present prospect for a crop of grapes at this point. It never was better since the first grapevine was planted. Nearly all varieties are carrying a heavy load. Some Delawares that overbore last year, which was very wet, are not fruiting so heavily as usual. Hartford is bearing an enormous crop, and the bunches are better than Concord this year. Diana, Iona, and Rogers' Hybrids all look finely. No mildew, no rot. As I have before said, Wilder must supersede the Concord as a market variety. With us this year it is immensely ahead. Salem is bearing a fine crop: some of the bunches will be as large as "the picture," which you know has been considered a little extravagant. I hear that the 30-acre vineyard at Brocton is promising well. A single Walter in the fine vineyard of Mr. Hoag is carrying a fine crop. He also has some Marthas in bearing, but the bunches seem to me small. I will send a few brief notes later in the season.

I. H. B.

LOCKPORT, N. Y., July 12th, 1870

[Glad to hear so good a report. The Martha bunch is not as large as the Concord, but we have raised them to weigh half a pound, of handsome shape and compact, and the vine is very productive. The bunches will get larger as the vine is older. Hope you will have a good crop of *everything*, Iona, Salem, and Walter included.—*ED.*]

GRAPES IN TENNESSEE.

MEMPHIS, July 9, 1870.

MR. G. HUSMANN:

Dear Sir:—You ask for a report

from grape growers. Well, as I am in that line a little, and received *all* my instructions through you, I will tell you how I get along. I never saw a vine planted, or layered, or grafted until I did it myself. Now I have three thousand vines in bearing, mostly Coneords, with a very fair crop, although I was very much discouraged on the 16th of April last. My vines had put out canes from two to six inches, and showed a large quantity of fruit; but all were killed. I read somewhere that I must pull off all the frozen wood: I did so, except one row, and that put out first again and did better than the rest. Where I pulled off the frozen wood they bled, and I think I injured the remaining bud. Part of my vineyard (one thousand vines) were a year old when set, the balance were cuttings put out in the field. I think the whole vineyard will average ten pounds to the vine—the 1,000 vines will go fifteen pounds or more. How is that for a crop, under the circumstances? There is no mildew, but some rot. Fifty Hartfords are very full, and I think a tenth of them are rotten. I have also fifty Herbemonts, with a few Cunninghams among them. On some of the Herbemont vines the grape are all rotten, others have no rot on them. No rot on the Cunningham; the Delawares are very fine also. The Con cords are rotting some, mostly on the richest ground. They are all on what is called here poor land, and the Herbemont is on the poorest of it. I put in about four hundred grafts of the Goethe and Martha (I got from you): about half of them came up. I think the severe drouth in May was the

cause of their failure. The Martha cuttings, four hundred, I lost; I root-grafted them and planted in the vineyard; none grew. The Goethe I did the same; they did better, and all my cuttings did well in the cutting bed, where they were mulched.

I have been very much discouraged about grape growing here. The old citizens said they would not do—that I would lose all I put in them: but I think the prospect is good. We have the advantage of the northern market. My Hartfords are coloring now (July 9), only about eleven weeks since they were all frozen off. I put three or four grafts of the Goethe into an old wild vine, and one of them has grown ten feet already. It was grafted in February.

Yours very respectfully,

T. S. BARBOUR.

[We are glad to see that our prophecy in regard to the crop was fulfilled so well, and think that even the croakers will now concede that the grape is the most recuperative and safest of all fruits, if suitable varieties are chosen. Your crop is a very fair one we think. Go ahead, and don't mind those who try to discourage you.

We never had any success in grafting grapes and setting them out the same spring. Would rather plant cuttings of such varieties as Goethe and Martha.—EDITOR.

CLIFF CAVE, Mo., June 22, 1870.

MR. GEO. HUSMANN:

DEAR SIR: At our locality we had more or less rain fall on twelve successive days in this month, keeping the surface of the ground and the foliage of the vines almost constantly wet.

During the last two or three days of this wet period, grapes began to show some rot, especially the Concord, but as soon as the atmosphere became dry the rotting entirely ceased. It was worse on vines not very closely summer pruned. The Catawba did not suffer from rot but mildewed badly.

The injury from the late spring frost

(April 16th) was also greater upon the Concord than upon any other variety in our grounds, excepting, perhaps, Clinton. I think fully two-thirds of the primary fruiting buds on the Concord were destroyed. I intend to make you a full report of the damage by frost at some future time. Yours, truly,

C. W. SPALDING.

A FEW HINTS ON WINE MAKING.

BY THE EDITOR.

It has been our fortune, during a practice of nearly twenty years, to serve an apprenticeship in American wine making, which commenced at the rudiments of the art; and we well remember how careful we would be to pick our grapes, to get them thoroughly ripe, to keep out all dew or rain, and the doleful looks we would cast upon our imperfectly ripened grapes, as we did not think it possible to make *good*, drinkable wine from them. But fortunately those days are past, and we often think of them with mingled pity and amusement. Thanks to the teachings of Gall, Chaptal and Petiot, we can now make good drinkable wine every year.

But, during this practice, we found that different grapes require different treatment, almost as varied as the grapes themselves. To elucidate this we would once more briefly allude to the definition of *bouquet* and *aroma*, as already explained in the "Chemistry of Wine," by Mr. Frings.

Aroma is the flavor peculiar to the variety of grape: for instance the foxy flavor so very perceptible as to be

disagreeable in some of our grapes, especially the Northern Muscadine, Perkins, Hartford Prolific, and even in the Concord and Catawba.

Bouquet is developed during fermentation by the action of the alcohol upon the acids. If the grape contains but little acid it can not develop much bouquet, nor can it be developed if the must does not contain sufficient sugar to be changed into alcohol during fermentation. These simple facts we must keep before our eyes, as they are the most important guides in wine making.

We have some varieties of grapes which will make so-called *aromatic* wines: that is, the aroma of them is most pleasant when fully developed, which it can only be by thorough ripening of the fruit. In this class we can include the Creveling, Cynthiana, Arkansas, Hermann, Norton's Virginia, and perhaps Clinton. We should therefore let these ripen thoroughly, if we intend to make the best wine they can produce; and for this reason we think, those living in northern latitudes, with shorter summers,

will never be able to make as good wine from them as those living in latitudes where they can thoroughly ripen and shrivel on the vines.

Other varieties we have which contain aroma *in excess*, and where it is desirable to have it in as slight a degree as possible, and to develop bouquet instead. We can best attain this by gathering the fruit when not so ripe, as the aroma is not so fully developed. Should the must not contain sugar enough it must be added; and should the grape contain a surplus of acid, we can ameliorate by adding water.

Among the varieties which will make the best wine, if treated thus, we will name the Concord, Cassady, Catawba, Cunningham, Delaware, Diana, Hartford Prolific, Herbemont, Ives, Louisiana, Maxatawney, Martha, Goethe, Massasoit, Wilder, Lindley, Agawam, Merrimack, Salem, Rogers' Nos. 8 and 12, Rulander, Taylor and Telegraph.

This may appear rather startling to some of our readers, and for a long time we believed that it was necessary to ripen all grapes thoroughly to make the best wine from them. But "experience is the mother of wisdom." We never made better Concord, Catawba, and Herbemont, than in the season of 1865, when the summer was somewhat similar to the present one, when no grape ripened thoroughly, and our Concord must did not average more than 65°, Catawba not over 69°, and Herbemont not over 75°. By adding a gallon of water to the gallon of must, and sugar enough to bring the whole mixture to 80°, we made a wine which we have not been able to sur-

pass since, nor come up to it. The Herbemont was pronounced by the best judges in the country the finest American white wine they had yet tasted. Our Norton's Virginia, however, made that season, though a fair article, was much inferior to the vintages of '66 and '67. Delaware made that season, from half ripe grapes, was valued at \$6.00 per gallon within six weeks from the time it was made. It was a perfect wine then, clear and fine, and with an exquisite bouquet. The Concord was without the offensive foxiness, and contained acid enough to be a very palatable wine: the best we have been able to make of that grape since.

In wine making we must always remember, that we have *no perfect* grape as yet; that grapes will, in different seasons, yield entirely different products, and that only *thinking, practice* and *experiments* will teach us how we can best improve it.

In making the wine we think it best now, after our experience of last season, to ferment each variety on the husks until the wine becomes perfectly clear and finished. Fermentation will draw out all wine-making ingredients, as acid, sugar, tannin, flavor, etc., and the husks be perfectly tasteless. We shall therefore leave it in the fermenting vats until the beginning of December, then draw it off and press the husks. We can not give the proportions, as they will vary with the variety of grape we have to deal with, and its inherent qualities.

Fermentation should be rapid and thorough, and the fermenting room be kept at an even temperature of 65° to 70°. Should it not be warm enough,

the room should be heated by a stove. Beware of cold cellars for young wine; they will retard fermentation, and you will have continued trouble. Your wine should be clear, and all the sugar changed to alcohol, in three months from the making.

We hope we need not tell our readers that all their utensils, pails, vats, casks, etc., should be perfectly clean and sweet. A sloven has no business to be a grape grower, much less a wine maker, and does not deserve success.

We can, of course, give only *general* rules, but we hope that they will be sufficient to enable all of our readers to make their wine. They need not expect that they will reach the climax at once: it will take long years of patient study and experiment to produce the *best* wine a grape is capable of yielding. We do not pretend to know *all* about it; on the contrary, the more we learn we see only the more clearly how little we yet know. But we have made some good wines in our day, and do not fear any more that we will make a really poor article. If these hints will enable our readers to do the same, we shall think ourselves richly repaid; and if they will, now and then, send us samples of their skill, we will try and give them our opinion and advice about it.

[We republish this article from last year's issue and have but little to add to it. Our wines made last year, by these rules, are very satisfactory, and we intend to follow them again—with such variations as the different season may make necessary.

As there is a great demand for *white* wine, many of our readers may

wish to make white wine from their Concord grapes. How to do this we have explained in our reply to Mr. Huhner, in Letter-box. We have made, also, excellent white wines of Hartford and North Carolina seedling, by a similar process. But observe, that in each of these cases our grapes must not be too ripe, as their peculiar aroma will then be too strong, and the must will not have acid enough to allow enough dilution of the aroma. Most of the white Concords we have tested do not contain acid enough.

We shall also use D'Heureuse's air pump, to hasten fermentation, and intend to have our wines ready for bottling in three months from the time of their making.

A few words to those who can make wine from the Goethe. This excellent grape, when properly managed, makes one of the finest and smoothest white wines we have. But it has the Muscatel flavor to such a degree that it is offensive, in the pure juice of well matured grapes. In January 1867 we made wine from it, which competed with Delaware, Herbeumont, Rulander, Maxatawney, Taylor, and the choicest Catawba, at the wine trial at Hermann, and received the second premium, as the best white wine on exhibition. It was made in the following manner: The grapes were gathered when only white and fully soft and translucent; thirty gallons of water and sugar were added to two hundred pounds of the grapes, and the whole mixture brought to 80° by addition of sugar. The whole fermented two days on the husks, was then pressed and put into casks. It was our favorite wine among some twenty-

five varieties we made that year. Last winter we tasted several samples made from the same grape, at St. Louis, at the meeting of Mississippi Valley Grape Growers' Association, which contained so little acid, and so much of the peculiar flavor of the grape

that they were repugnant to the taste. Such wine we would not drink, could we help it. "A word to the wise suffices."

We are so crowded with matter that we must defer the continuation of this subject until the September number.

GERMAN STUDENT'S SONG.

[Translated from the German by J. A. Schmidt.]

My life is full of joy and love,
And brightly ringing songs,
And when they gaily rise above
To me the world belongs.

Wild is and rough the road of life,
Now high, to-morrow low,
In vain against our fate the strife,
Therefore—I let it go.

The grape is crushed and pressed—we all
Begin the life in tears;
But soon, with song and festival
The sparkling wine appears.

Away with care; as snow and ice
Melts in spring's sunny shine—
Still grief must leave when we arise
Like bright and golden wine.

Come in thou guest, so dear to me;
Oh joy, and taste the wine!
Bless all that I received from Thee,
And be thou queen of mine!

The Royal Crown, he shall wear hence
Bacchus, god of the wine;
Joy be the queen, its residence
Be on the glorious Rhine!

The Senate sits in Heidelberg
Round that gigantic tun,
And Congress in Johannisberg,
Producing wit and fun.

And the Minister's residence
Shall in Cote d'Or remain,
Council of war and Parliaments
Your seat be in Champagne!

We call attention to the advertisement of Capt. J. W. Martin, in our present number. We believe that an energetic, practical grape grower will find this a good opportunity, as it is said to be one of the best locations in the South, convenient to both city and

railroad, and a vineyard is already commenced on it.

We understand from Capt. Martin, that capital is not essential, but that he desires to associate with him a thoroughly practical grape grower, on advantageous terms. EDITOR.

EDITOR'S LETTER BOX.

TRENTON, Ouachita Parish, La.,
June 6th, 1870.

GEORGE HESMANN, Esq.:

DEAR SIR: Will you allow me to encroach upon your valuable time, and permit the favor of an answer to two questions?

First. If the Scuppernong grape will grow in and about the line of the Iron Mountain Railroad or South Missouri?

Second. If South Missouri on and near Iron Mountain Railroad is at all adapted for grape culture generally? and greatly oblige,

Yours, respectfully,

J. R. ENDER.

[1. The Scuppernong will not ripen its fruit, and its wood is winter killed nearly every year in Missouri. It is entirely worthless here.

2. Some parts of South Missouri are well adapted to grape culture, and our friends on the Iron Mountain Railroad have claimed often that they have *the best* grape region in the State. We do not think so, but there are certainly good locations on the Mississippi bluffs, and along the line of the Iron Mountain Railroad.—EDITOR.]

VILLA RIDGE, Ills., July 5, 1870.

GEORGE HESMANN, Esq.:

DEAR SIR: I expect to make from two to three thousand gallons of wine this fall, and write to know if vats and casks used one year in a beer brewery could be made sufficiently clean to use for wine? I have a steaming apparatus with which I could thoroughly steam them if necessary. I can get a vat and casks at about one-half the price of new ones of the kind stated above.

My grapes are Concord. I have thought to make what white wine I can, and then with the balance to Chaptalize say with an equal amount of must and water. Is it advisable to do this? and if so, can I press the ground grapes and still have white wine? or should I merely drain it off? Does the must for white Concord wine need any different treatment in fermentation from red, with the exception of not being fermented on the husks?

My cellar is a seven-foot house cellar, and I cannot afford to build a regular wine cellar this season. Is there any process of air treatment by which I could improve my wine to make it more saleable this winter? as I must sell for want of a proper cellar to keep it in during the hot weather.

We have usually very warm weather here when our grapes ripen (about August 15th to 25th). Should I put the fermenting vat in the cellar and keep up a fire heat, or would it do to ferment outside, say where the thermometer reaches 85° to 90° in the day and as low as 50° to 60° at night?

Yours, truly,

A. HUHNER.

[Vats and casks from a brewery may be used if they have not been pitched, as is often the case. In that case, they are not fit for wine.

For making white wine of Concord, we would advise not to mash the grapes at all. Do not let them get too ripe; if they are fairly black they are ripe enough; throw them into the press as they are, and the pressure will burst the skins and let out the juice without

the coloring matter. Then add one-third of sugar and water, weigh the whole mixture, and bring it up to 80° Oechsle's scale, by addition of sugar, if necessary. I would use D'Heurense's air pump during fermentation, and ferment in a temperate room, but would prefer a shed to a cold cellar. The process you wish to follow with the husks of your grapes is called Petitot's method, not Chaptal's. Chaptal recommended the addition of sugar, *without water*, to inferior must. You can press your grapes sharply for white wine, and then make good red Concord from the husks, in the way you propose, by fermenting the husks with the fluid for about a week.

Never mind the warm weather. I would rather make wine and ferment must in a temperature of 85°, than in one of 45°. If your must has been thoroughly fermented, and the wine has become perfectly clear, you will have no trouble in keeping it through the summer.—EDITOR.]

MONMOUTH, June 17, 1870.

MR. HUSMANN:

Dear Sir:—Have you the Croton, a new white grape, and at what price can I get some wood or a vine? I wish to raise some white grapes for market; our market is glutted with grapes, and I want something earlier or better than others, so I can find a market. I would like to have an earlier grape than the Hartford. Have you the Janesville grape, and have you fruited it? It is said to be two weeks earlier than the Hartford. Please direct and assist me in getting something that will give me a little advantage in the market. I will write you

again and let you know how the different varieties have behaved with me.

Yours truly,

JAMES FINDLEY.

[We have no Croton vines for sale. Why do you not grow the Martha as a *white* market grape? also the Goethe, which we think is best when yet white, for eating. If you will take our advice, you will look more to *late* grapes than to early ones, for profitable marketing. There is more profit in them. The Mary Ann is a week earlier than Hartford, and the most profitable *very early* grape we know. We have not seen the Janesville, nor do we know anything positive about it.—EDITOR.]

GRAFTING.

TROY, IOWA, June 14, 1870.

MR. GEO. HUSMANN:

Dear Sir:—I think a few lines to the CULTURIST might be of some little interest. Last fall, between the 15th and 20th of November, I grafted quite a number of five-year-old roots, setting two grafts in each, and taking more than ordinary pains. I spent some two days in securing from frost, I removed the covering in April, and kept down all suckers. On a close examination to-day I found all to be dead, so I am done with fall grafting. Mr. Fuller's plan may succeed in the South, where winter protection is not needed. I rather think here, in our cold climate, that fall grafting takes too much work, and is not very successful, so far as my personal knowledge extends. I also set some eighty grafts in March; the greater part are starting finely. I graft from four to six inches under ground, put a small shovel of sand around the graft, then

cover two or three inches with fine, well pulverized earth, so as to keep the sand moist: for if the sand becomes dry it would injure the buds. Mulch with sawdust is my most successful plan.

Yours truly,
R. W. GANDY.

[You are right about fall grafting. It has been very unsuccessful here. When spring comes again we will give our readers a new method, which is much easier, and which we have practiced with good success. The leaf of the Peggy you sent us was the largest grape leaf we have ever seen. It measured 14 inches across, and 15 inches from stem to point. We would like to hear more of the grape, and how it has behaved elsewhere.—ED.]

EDGEGOOD, July 10, 1870.

FRIEND HUSMANN:

Please find inclosed one dollar for the renewal of the *Grape Culturist*; you said some time ago that you would have to give up the paper, unless you got more subscribers; never think of giving up; add on another dollar first, and keep the thing moving; can't do without it. I suppose that you would like to hear how grapes are doing in this part of Illinois, I have five hundred Concord vines in their fourth bearing, set 8x8, ground trenched $2\frac{1}{2}$ deep, which work I think is useless; the first crop was rather light, the second year, sold \$600, worth of grapes, from 380 vines; which left me \$400 clear, the third year $\frac{2}{3}$ of them rotted, and the remainder brought but little, owing to there being so few berries on the bunches. This season they are looking fine, and are loaded with fruit, nothing has dis-

turbed them, save a little rot about the middle of June, being a little too wet. I have 2,140 Concord in their first years fruiting, and they are doing their work faithfully; ground subsoil, vines set 6x10; also 1000, two years, set 7x10, making a fine growth; and 780 set last fall, 7x10. I have a dozen, of each of Hartford, Ives' Seedling and Norton's Virginia on trial. Hartford is well loaded; Norton is growing finely, but did not set much fruit; Ives is not looking so well as I would wish to have them, not much fruit on them. I have a few of the Clinton doing worse every season; think I will graft them with some better sort, they are not worth planting. Last season I think that I cultivated my vines too much, got too much growth of vines which I believe was one cause of the rot; some of my neighbors had a few in their garden, with no cultivation, growing up to weeds as high as the trellis and no rot. I do not think that we need to do any extra work to make our vines grow, all the cultivation that is needed in this place is just enough to keep down the grass and weeds. Some one came in to my vineyard one year ago last spring, about the time the buds were starting, and cut part off of several vines, one vine was cut all off, and of course they bled very much, the ground was quite wet about the vines for a long time, the vine that was cut all off made a very large growth, and long-jointed, and I was expecting to see it hang full of nice large fruit, but was disappointed. The fruit is rather small and the bunches not filled out good, and I have noticed the same thing in other parts of my vineyard,

where the young vines grow very large, the fruit is smaller and the bunches not well filled. What do you think about the large growth of vines? please give us your ideas; there is about ten thousand vines set in this vicinity, mostly Concord, the grapes are all marketed, no wine made. The extra numbers of the Grape Culturist that you are sending me, I have distributed among my neighbors, sent one to Oregon one to Maryland and one to New York, hope to get a subscriber soon. I must close, for I am spinning this yarn longer than I expected I should.

E. A. HEGEMAN.

[Thanks for the interest you take in the Grape Culturist. We can not think, however, of increasing the price. We wish to keep the paper within the reach of the poorest vintner in the land. We have now worked nearly two years for nothing.

we think we may say faithfully and earnestly, will have spent, at the end of this year, about \$1,000 out of our pocket, but we hope we have also done some good, and if we find, at the end of the year, that our list will not warrant a continuance, why we must quit, that is all. Therefore our friends, who wish to have the paper continued, should exert themselves betimes; try and add more recruits to our list. This is the only assistance we ask, besides the contribution of their experience to our columns, and we hope it will be freely given.

If your vines make too much growth, we know of one remedy: prune longer, giving them more to do, and they will soon keep within bounds, and be more healthy. Your Nortons and Ives we suppose to be too young to bear much. They will generally not bear much before the fourth summer. EDITOR.]

Grape Vines! Grape Vines!

FALL OF 1870!

We offer our usually large and selected stock of all standard and new varieties, including

SALEM,	MERRIMACK,	IONA,	CYNTHIANA,
WILDER,	GOETHE,	HARTFORD,	MARTHA,
LINDLEY,	CONCORD,	DIANA,	EUNELIAN,
AGAWAM,	DELAWARE,	HERBEMONT,	WALTER.

SALEM A SPECIALTY.

Our stock of plants will be unequalled, and quality of superior excellency. Salem, with us, is bearing a fine crop of fruit, and must soon become one of the leading varieties in cultivation. It fulfills all that has been claimed for it. For eirenlar, etc., address

I. H. BABCOCK & CO.,

Lockport, N. Y.

WANTED.

WANTED—An industrious energetic man experienced in grape growing, to take charge of a young vineyard situated one mile and a half from Little Rock, Arkansas. The location is a beautiful table land, on a bluff elevation of some three hundred feet, on north bank of Arkansas river, overlooking the city and railroad depots, convenient to both; and is, all things considered, the most desirable in the State for a large vineyard. A partnership with responsible party of some means preferred, but this not essential. Correspondence solicited. Address, J. W. MARTIN, Little Rock, Ark.

WANTED several active, enterprising salesmen, to sell wines and plants for the Bluffton Wine Company. Parties wishing to engage, should address,

WM. WESSELHOEFT,
Secretary Bluffton Wine Co., Bluffton, Mo.

Bushberg Vineyards & Grape Nurseries.

GREAT REDUCTION IN THE PRICE OF
GRAPE VINES
AND SMALL FRUITS.

SEND FOR NEW PRICE LIST FOR FALL 1870.

Our ILLUSTRATED DESCRIPTIVE CATALOGUE—“More useful to the Grape Grower than some works of much greater pretensions,”—*Am. Agriculturist*,—will be sent by Mail, post-paid, for only 25 cents, either in the German or English Edition, as you may order.

Agents Wanted to canvass for orders for Fall delivery. Terms liberal, profits handsome. Posters, Price Lists, etc., gratis. Address,

ISIDOR BUSH & SON, Bushberg, Mo.

GRAPE WOOD:
TWENTY KINDS!

Immense Stock, especially of

Concord, Ives, Delaware, Hartford, Iona, Catawba, Isabella, Clinton, Rogers' Nos. 4, 15 and 19, etc.

Cut from Bearing Vines before hard freezing, and stored in frost-proof Cellars.

Very Low for Cash. Price List Gratis.

ALSO, LEADING VARIETIES OF GRAPE ROOT IN STORE.

Can ship South safely at any time.

M. H. LEWIS, Sandusky, Ohio.

Missouri Wines and Plants.

THE BLUFFTON WINE COMPANY

NOW offers to the trade, and to the public generally, its first crop of wines, grown at Bluffton, comprising, of red wines, Concord, Norton's Virginia, Ives, and Clinton; of white wines, Concord, Catawba, Hartford, Delaware, and Herbeumont.

Our wines are of excellent quality, and we are sure that they will give general satisfaction to consumers. Our motto is, "Low prices, good quality, and quick sales;" and Wholesale Dealers in wines will find it in their interest to apply to us. Price lists sent on application.

We also call the attention of Grape Growers to our large and complete stock of plants of all the leading varieties. We shall make it our aim, in our fall trade, to supply our customers with the best of plants, and at as low rates as any reliable firm.

Descriptive Catalogues sent, on application to

WM. WESSELHOFT, Secretary,

BLUFFTON, MO.

PUBLISHED AND FOR SALE

BY

CONRAD WITTER,
ST. LOUIS, MO.

MUENCH, FREDERICK, *School for American Grape Culture.* Brief but thorough guide to the laying out of vineyards, the treatment of vines and the production of wine in North America.

MUENCH, F., *Amerikanische Weinbauschule und Weinbereitungslehre, etc.*

Either one of these books will be mailed free of postage on receipt of one dollar.

HUSMAXX, GEORGE, *The Cultivation of the Native Grape and Manufacture of American Wines.*

On the receipt of \$1.50 this book will be mailed to any address.

SCHMIDT, J. A., *The Diseases of Wine.* how to prevent and how to cure them, according to the doctrines of M. Pasteur.

This book will be sent, free of postage, on receipt of \$2.

C. WITTER keeps a large assortment of books treating on the Culture of Grapes and Manufacture of Wines.

Catalogues sent on application. Please address letters,

CONRAD WITTER,

jan69-tf

122 S. E. corner Walnut and Second Sts., St. Louis, Mo.

CHOICE VARIETIES OF
Grape Vines, Strawberry Plants, Raspberry, Blackberry & Gooseberry.

Also, a few Peach and Cherry Trees, the finest growths. Particular attention will be paid to small orders of plants to be sent by mail. For sale by

SAMUEL MILLER, Bluffton, Mo.

TOBIAS WEIGOLD, COOPER, 1618 Jackson Street, St. Louis, Missouri.

Offers his services to Wine Dealers, as manufacturer of all kinds of casks, fermenting vats and cellar apparatus. He guarantees satisfactory work and lowest prices. Refers to some of the principal wine dealers in the State of Missouri, for whom he has made casks and vats for a number of years, and especially to the Clifton Wine Company, No. 22 South Main street, where casks and vats of his manufacture can be seen by those interested in the business.

Feb'69-tf

GREAT WESTERN GUN WORKS, NO. 179 SMITHFIELD STREET, PITTSBURGH, PA.

Double-Shot Guns, \$9 to \$100. Single-Shot Guns, \$3 to \$20. Rifles, \$10 to \$50. Revolvers \$6 to \$20. Discount to Clubs. Send stamp for price catalogue.

 Army Guns and Revolvers bought or traded for.

June 9-3m

HAVE YOU GOT MARTHA?

GRAPE VINES AND SMALL FRUITS.

[Nursery Established in 1857.]

A splendid stock of Vines and Plants are offered the coming Fall and Spring, including nearly every variety known to be of value. The popular and white Grape

MARTHA, OR (WHITE CONCORD.)

In large or small quantities. Also, Arnold's new Hybrids, Eumelan, Walter, Weehawken, Christine, Hine, and all valuable numbers of Rogers' Hybrids; also, Delaware, Iona, Isabella, Concord, Hartford, Ives, Norton's Virginia, etc., etc., in all about one hundred distinct varieties.

Kittatinny Blackberries and Clarke Raspberries in large quantities, Jucunda and Charles Downing Strawberries, Downing's Seedling Gooseberries, Cherry, Versailles, White Grape, and Black Naples Currants, etc., etc.

Send stamps for Illustrated Catalogue and Price Lists to

april 9-11

GEO. W. CAMPBELL, Delaware, Ohio.

D'HEUREUSE AIR TREATMENT.

PATENTED AUG. 6th, 1867, AND AUG. 3d 1869.

For FERMENTATION and GERMINATION, and for PRESERVING, PURIFYING and IMPROVING of Organic Substances.

Exceedingly useful in Malting, Brewing, Distilling, Baking, Manufacture of Wine, Cider, Fruit Wines, Fruit Brandies, Vinegar, etc.; in Sugar Works, Oil Works, Manufacture of Extracts, Preserves; in Storehouses, Transportation of Grain, Produce, Fruit; Purification of Water, etc., etc.

 Rights for States, Counties, Districts, or Establishments, for sale. Apply to

P. O. Box 6844.

R. D'HEUREUSE, New York.

THE GRAPE CULTURIST.

VOL. II.

SEPTEMBER, 1870.

No. 9.

SEPTEMBER.

WORK FOR THE MONTH.

This will be mostly confined to wine making, as the Hartford, Delaware, Concord, North Carolina Seedling, and many others will have to be gathered this month.

It will assist the ripening and swelling of the fruit very much if the vines are hoed and plowed once more,

so that the ground may be in a condition to absorb all dew and moisture. Shade the fruit wherever you can, so that it can ripen fairly. By loosening a young cane now and then and tying it over the fruit, you can assist wherever the leaves may have dropped.

TWITCHELL'S ACIDOMETER.

We had the pleasure to receive one of these instruments from the inventor a short time ago, and after submitting it to a thorough trial on some eight varieties of wines, we confidently recommend it to our readers, as the only safe and practical instrument of the kind we have seen yet, and which any person of common intelligence can use with perfect safety. The inventor says of it, "The action of this instrument is based upon the well established fact, that, when an excess of carbonate is added to a liquid containing an acid, there will be given off carbonic acid gas in exact proportion to the amount of acid there was in the liquid; and by measuring the volume of the gas given off, the amount of acid in the liquid can be determined, while the instrument is

so divided as to give the exact per cent. of acid without any calculation or table of corrections."

All the acidometers formerly in use were very unsafe in the hands of any but a practical chemist, as the solution of ammonia is influenced by the least exposure to the air, and it requires some practice even to determine the exact coloring of the liquid. They were therefore of very little practical value to the majority of grape growers, and thus Twichell's Acidometer, being both safe and simple in its application, fills a want long felt by the grape growing public. We annex a cut kindly furnished us by the inventor, with directions for its use. See advertisement about the price of these and other instruments.

EDITOR.

TRAILING CHAIN CULTURE.

EDITOR GRAPE CULTURIST:

When a description of this culture was published in the papers last season, as it happened I had several of Norton's Virginia plants chain-trailed in the same way.

I had practiced it for years on cucumbers. I found they would grow much faster and do better when trailed on forks or on brush under them than when on the ground. I question if that mode of culture will even go into general practice here in vineyard culture; there is too much of the French pattern about it. For this country it requires a great many little forks; still I think it useful in propagating new varieties where as many plants as possible are to be produced from a small quantity of wood.

It is astonishing what a growth they will make when trailed in that way; those Norton's Virginia plants that I trailed last summer, only one year growth, if I had laid down all the wood they made, I am sure would have produced more than a hundred plants each. I have about thirty Goethe grafts that I set last March; they did not start till June, but when they did push, the way they went ahead was not slow; they were worked on Isabella vines four years old, often trailing them six or eight weeks. I layered them, and have a fine prospect for fifty to seventy-five plants from each graft, with good canes for a full crop next season. I use saplings an inch or less through, cut them in lengths of fifteen inches,

sharpen one end to put into the ground, split the other end, press a chip into the cut, as it is more expeditious than hunting forks.

Some of your readers who attended the Illinois State Horticultural meeting at Bunker Hill in 1868, will recollect that Dr. Warder exhibited a grape-vine from a single bud of a graft that measured over ninety feet; of course, I don't expect mine will come up to Dr. Warder's specimen, but do that some of them will come near it. I have faith in Goethe.

I have been experimenting the two last seasons, and I believe grape vines will make a larger growth and do better if suffered to trail on the ground the first two seasons, than they will tied up to stakes or trellis. Of course, cultivate but one way, and train them along the rows; it saves two years of rotting of stakes in the ground.

A. A. HILLIARD.

BRIGHTON, July 25, 1870.

[We publish the above with pleasure, although we confess we can not see how our correspondent can keep the weeds down, or keep his vines cultivated, under this system. For the purpose of layering, we can not see the necessity of forks; if it is desired to grow the largest number of plants, the vines may be layered in June or July, by simply letting them run on the ground, and we think they will root easier than if spread over the forks. ED.]

THE SCUPPERNONG AGAIN.

"Mr. Colton called attention to the foregoing statement by Mr. Stringfellow, that this grape did not rot. He had never known it to rot or mildew. Thought it might be found profitable to bring the plants north, and graft the Catawba on them. It has the finest flavor of any grape in America. [Derisive laughter from the pomologists present.] It will grow anywhere the sweet potato will. Mr. Fuller said he was sorry to hear such stuff talked before this club. The Scuppernong would not be grown by fruit cultivators north, if it could be grown. It is not fit to eat. It is entirely worthless north of Washington. Why, I am sorry to hear such nonsense talked here, because there are farmers fools enough to send for this grape on the strength of this gentleman's recommendation. And it is not any better, if as good, as our common fox grapes. Why should farmers be misled by such talk? Mr. Colton replied, urging that a new variety, free from rot and mildew might be obtained by grafting some of our best grapes on it. Mr. Carpenter asked how long since it had been discovered that a new grape can be produced by grafting one stock upon another. It was a new theory to him. The distinguished Professor Colton seemed at sea. A friend suggested that he meant hybridizing instead of grafting, when the learned gentleman concluded he did not know much about agriculture, and thought he must have meant hybridizing.

Mr. Gregory thought Mr. Fuller mistaken as to the poor quality of the

Scuppernong grape. He had not eaten it, perhaps, as ripened in the Southern sun. Mr. Fuller replied that he had received specimens of it from the South in good condition, and had eaten it both here and there; and he thought it a grape of very poor quality. But there is no accounting for taste. Mr. Gregory said it is highly regarded in the Southern markets; is hardy, easily propagated, productive, and sustaining the same relation to the South that the Concord does to the North. Col. Harriß has traveled in the South the present season, and had been informed there, by persons whom he regarded as competent authority, that the Scuppernong is going out of favor, and the North Carolina Seedling is taking its place, both for fruit and wine. Prof. Colton said the Scuppernong was a light colored grape and made a light colored wine, while the North Carolina Seedling is dark and makes a dark wine. Regards it a seedling of Scuppernong. Mr. Fuller said it was news to him that the Scuppernong is a light colored grape. It might be called a light bronze. He doubts if there ever was a gallon of wine made from the pure juice of the Scuppernong. He had tasted many samples, and found that the juice of that grape had been mixed with whiskey or some other liquor and sold as wine; but it is not wine, and doubts if wine will ever be made from it."

[The above is sent us by a friend, who has clipped it from the *New York Sun*. It is certainly amusing—but at

the same time disgusting—to see men who do not have the faintest perception of vegetable life, know nothing about the influence of grafting, but only know that the word hybridizing is in the dictionary and that it means some horticultural operation, persist in trying to force this grape upon Northern planters. If they consider it a "divine gift" to the South, why—let them cherish it, where it will prosper. But we have had it growing for fifteen years

near Hermann, and all we obtained of it during that time was three bunches, of half a dozen berries each, which we attempted to eat, but gave it up in disgust. If it will not stand the climate here, what folly then to suppose that it will succeed still farther north. Let us tell our northern readers, once for all, that every cent they spend in its introduction and trial is thrown away. *It may be valuable at the South, here it is worthless.*—*EDITOR*]

A NEW GRAPE—THE THEODOSIA.

Last spring, Mr. E. S. Salisbury sent us six vines of a new variety, named as above, which we planted in the experimental vineyard here, and requested a description of him.

The vines grew well, seem to be an *Aestivalis*, and we shall report on them further. Mr. Salisbury sends us the following, a copy of his record:

ADAMS, N. Y., July 1, 1870.

GEORGE HUSMANN:

Dear Sir.—Yours of the 27th June is received; I am glad to learn that the vines are received, and in good condition. As you wish for a more particular description, I do not know that I can do any better than to give you my record of the vine from the first to now. I am not good in description.

History of my seedling grape named Theodosia, the name of my wife.—In the summer of 1862, a chance seedling grape vine came up in my garden grounds. I saw that the vine had good foliage, and made a good growth, so I took it up in the fall and heeled it in, and next spring (1863) set it out in

a row with other vines, *Adirondac Isabella*, and others; it grew in course of the summer some six feet, and looked remarkably fine. In summer of 1864 it bore seven clusters of fine grapes, and they were well colored on the first day of September. In the summer of 1865 it grew finely, and produced twenty-five bunches of fruit, which were well colored first day of September. In summer of 1866, it grew well and gave me some fifty bunches of fruit, which were ripe as usual first day September. In 1867 it grew finely and gave me about forty pounds of fruit, but the robins took part; what I gathered made over three gallons of wine, which is high colored, and rich; this year it was well colored fifth September (*late season*). I believe it is hardy and will make an excellent wine grape. In 1868 it grew well and set finely, and the fruit was black 25th of August; the fruit of this year, together with some other young vines, made ten gallons of wine. In 1869 the original vine bore fifty pounds

(having been close pruned to put it in different shape), well colored the fifth of September; this year I had one hundred pounds from this and the other young vines, making twelve gallons of wine. This seedling continues to ripen the earliest of any varieties I have. The earliest varieties I have, are Adirondac, Israella, Rogers No. 19, which ripen about the time of my seedling.

This year now (first day of July), the vine has by actual count two hundred and thirty-six bunches; the bunches are by measure three and a half to five inches long, mostly shoudered; the vine covers the trellis nine-

teen feet long at an average of four and a half feet wide, filled with grapes, which are now about the size of the Delaware. Black when ripe, being in size between Delaware and Creveling; clusters very compact (*rather too much so*); quite tart, but leave a pleasant taste in mouth after eating them. It takes no more sugar for wine than for Delaware; the juice is almost like molasses. I have generally mixed the grapes with my others to give the wine a good color.

I have eighty vines set that will bear next year, and some 400 in my grounds of one and two years old.

E. S. SALISBURY.

GRAPE CULTURE.

We surrender most of our available space this morning to an interesting letter from Hon. Jno. R. Eakin, of Washington, on the above subject, addressed to our fellow-townsman, Capt. J. W. Martin, who has just commenced establishing a vineyard on Big Rock. It contains valuable information for the amateur grape grower, and will prove an excellent guide to those who are about engaging in the business of grape culture. It was written as a private letter of advice to Capt. Martin, but Col. Eakin has since consented to its publication:

WASHINGTON, ARK., July 3, 1870.

Dear Sir:

I was much pleased to receive your letter, and find in you another recruit for the thin ranks of the grape growers in Arkansas. Just here, once for all, let me express the desire that you con-

tinue to correspond with me on this subject whenever you have leisure and anything to say which you would be prompted to say if we were sitting together by a fireside. I may be mistaken, but I have for years considered Arkansas *par excellence* a wine country: better than France or Italy—as good, perhaps, as Hungary—and certainly better than Ohio, Illinois or Missouri. Saving California, which is too distant to affect us much in competition, I believe Arkansas is the best grape region of the United States. I look forward to the time (and I hope to live to see it) when the grape and wine crop will approach the cotton crop in value, and thousands of families will find a support on ten acres each. For that reason I hail every grape grower that comes to my knowledge with warmth and *impressment*. When I visit Little Rock, unless

very much hurried, I will go to Big Rock and see your vines. I know the nature of the soil. I am sure it is even better than my own for vines. You have the additional advantage of being on a large water course. The north side of the river is always best.

I would not undertake to advise a friend about grape matters who takes and reads the GRAPE CULTURIST, except, perhaps, in some matters peculiar to our local circumstances. That journal is a noble enterprise, and should be sustained. It was a bold enterprise to invest so much capital in a specialty. I am sure it is, or rather was at first, a losing business, and only to be accounted for by the enthusiasm and love of the subject which seizes all grape growers who once allow themselves to be interested. Vine culture to the horticulturist is what the horse is to the stock raiser, or turfman—a thing to be loved above its intrinsic value.

With this journal, and Husmann's and Fuller's little books, you have everything you need. Let me advise you also to study Mobois' little book. It is invaluable. De Breuil's book (published at Cincinnati) is also very interesting and instructive. I have not seen Flagg's recent book, embodying his observations in European vineyards during several years' travel and residence there; but from criticisms and extracts am sure that it is a great addition to the literature of the vine.

But I fear to become garrulous. As to varieties, you mention Concord, Norton's Virginia and Ives' Seedling as your principal stock. The first is the most extensively cultivated in Missouri, for market or wine, of any other, and is doubtless safe. The second is

preferable in our climate, and I would advise you to go largely on that in future planting, but that I think the Cynthiana a still better grape of the same class. It closely resembles Norton's in vine, leaf and fruit. Has all its good qualities and some better. They say also its wine is superior. It costs no more to cultivate, and of the two I mean myself, in extending my vineyard, to give it the preference. I have no experience with the Ives'; it has come into notice since I made wine, in Tennessee. I have some vines to test, and without professing any knowledge on the subject—"I do not like it, Dr. Fell." Nor am I much impressed with the idea that the Concord, although styled "the grape for the million," is to be our grape for Arkansas. By the time it has served us as long and faithfully as the Catawba has, it will be more than I expect if it sustains its reputation for healthfulness even so well. It is intrinsically a much inferior grape to the Catawba, in seasons when both succeed.

Let me urge you not to neglect the Catawba. It is the habit of late to disparage it, and these things always go to extremes. Let us confess that its inherent vice and inveterate habit of rotting renders it an unsafe grape for profit. But it is easily prince of the whole Labrusca family in quality of fruit and wine. *I have never eaten a better grape than the Catawba*, and I have in my garden Goethe, Delaware, Martha, Iona, Maxatawney, Diana, Isabella, and many others, all of which have fruited. I imagine, too, that the Catawba is recovering its health and vigor. I am sure my vines are, and some of them are ten years old. They

make cleaner wood and more healthy fruit than they did five years ago. The man who discovers some plan to relieve the Catawba of rot will be a greater benefactor than he who discovers a half dozen new varieties to bleed the public for a season, and then to be discarded. Have a hundred or two Catawbas "an' you love me, Hal." It belongs to a class with which, especially for eating, we can not afford to dispense. It is thought the Goethe may supply its place, but it is scarcely so good in flavor. It is certainly a most healthy and vigorous vine, and very prolific. It is reported to make an excellent wine. For three years it has fruited with me, and never shown disease. One year it suffered, I thought, more than any other, from the grape curculio; but that may have been accidental. Go pretty heavily on Goethe. The Delaware is a universal favorite. It is the one grape which every one praises. You may notice in the reports from the different States, published in the Agricultural Department report for 1858, that the Delaware ranks first in almost every State. Wherever it will succeed it is looked upon as the acme and highest perfection of grape yet attained. The fruit and wine sell higher than any other. It is not so profitable, however, generally, because the vine is a feeble grower, and succeeds only in some localities. In view of this I have taken great interest in testing the Delaware in Arkansas. Knowing its importance, in case we can grow it, I have planted vines, and induced my neighbors to do likewise. The report is favorable from all, and accords with my own experience. The vines grow vigorously, do not shed their leaves, do not seem in-

fested with insects, have shown no mildew, and in two years fruiting not a single berry has rotted. This is certainly very promising, and induces the hope that this invaluable vine will find its congenial home with us. Plant some Delaware by all means.

On the whole, I feel some disappointment with the Herbemont, although I have not tried it long enough to justify any doubt of a grape so unanimously esteemed. I have two trellises of it, the length of an acre, side by side with trellises of Norton's Virginia, and it does not show well in contrast, although a much more exquisite fruit when ripe. It mildews and rots partially, and is the especial favorite of all the birds of the air. Certainly, it is the most prolific variety I know, and stands the winter's cold and the frost snaps of spring remarkably. This year I have a fair crop of it, and will tell you of its wine next summer. Meanwhile, I advise you to plant just a few Herbemont vines—say fifty.

There are a great many fine grapes for eating of which I would have a few of the most noted; say Martha, Maxatawney, Salem, Cassady, Diana, Isabella, Lenoir, and such others in the catalogues of the nurseries, whose descriptions, always to be taken *cum grano*, may strike your fancy. It would be well also to try a few foreign varieties. Some of them may suit our climate and soil. I have a piece of ground set for *trials*, in which I have about forty varieties. For the vineyard, I intend, myself, in the future, to plant Cynthiana, Norton's Virginia, Goethe and Delaware; I already have sufficient of Catawba and Concord—if not, I would

plant them also with some of the Martha for a white grape. The sooner in the fall, after leaves have fallen and the wood growth matured, that vines are planted the better; but successful planting may be continued in Arkansas throughout the winter, until the buds put forth in spring. Vines from northern Missouri, which have not started, may be set out here even the last of April. We have really no spring and fall seasons for transplanting as they have at the north; there the ground becomes frozen in winter and transplanting cannot be done until it thaws in spring. Meanwhile trees and vines which may have been transplanted in autumn remain entirely dormant. The question arises there, whether spring or fall planting is best, and is much discussed, without result, as one would suppose, since, in the nature of things, it can really make but little difference. We are under different circumstances. Our warm winters keep the ground continually open, except now and then a slight crust for a few days, easily broken through. We may set out trees when we please, without any distinction of spring or fall. There is only this difference, in our climate the roots of vines are never wholly dormant, but grow a little during the warm spells. Hence, vines transplanted early in winter get better established and take a more vigorous start next spring, than those freshly set out; they have small roots to begin upon; hence the earlier the better, but still the planting may continue until vegetation begins in the wood. On the other hand, immature roots are injured by trans-

planting and it is not well to begin too early in the fall. Even the middle of November, for home grown plants, may be too early, if the fall has been late. Whereas plants from northern nurseries will have, by that time, certainly ceased growth, and be in order. It is simply a matter of judgment. In ordering plants from the Missouri nurseries it is best to get them and transplant before the cold weather of December—beginning in October if ready. With home grown plants I would think it best not to begin earlier than the first of December, and to continue all winter if necessary. This gives us the advantage of time for thorough preparation of the ground.

The question of distances arises at the time of planting. I am thoroughly satisfied that the grape growers of America, misled by the German immigrants, have been all the time in error in this matter. This is not Germany, nor are our vines of the class of European vines. We had much better have taken advantage of the south of Europe; vine growing would have been much further advanced, and many disappointments avoided. We pruned too severely, and gave too little room. I am satisfied that not only more but finer and healthier fruit is produced here by ample room and long pruning. I can take any one into my experimental vineyard to-day and point this out, showing marked differences of fruit on vines differently pruned. Those branches on short spurs near the old stock are much more dwarfish and subject to rot than those growing upon long canes trained high, with

plenty of wood. The mere sight is more than volumes of argument. I think seven feet apart for trellises a good distance for all varieties, without distinction. I have myself adopted the plan of trellises six feet apart, with a space of ten feet every fourth row to admit the passage of carts when necessary. This is a very pretty plan, but with the rank growing vines scarcely gives room enough I think for the roots. Seven or eight feet would be better. Besides, as the trellises need not be built until the third year, the intervening ground might be made to produce crops of potatoes, cabbages, or other crops which would not entangle or choke the young vines.

The distance of the vines in the row should depend on the varieties. For Herbemont, Goethe, Norton's Virginia, and Cynthiana, I would allow fifteen feet between vine and vine along the trellis. For Concord, Martha, and other tolerably strong growers, I would allow ten feet. For Catawba about eight and for Delaware about six feet. Other varieties should be allowed distance in proportion to vigor of growth.

Very respectfully, yours,
JNO. R. EAKIN.

J. W. MARTIN, Esq., Little Rock, Ark.

[We copy the above from the Little Rock (Ark.) Daily Gazette, as it may be very interesting to our many southern readers, and as friend Eakin's advice is good in the main. Of course we cannot agree with him in *every* thing. His strong predilections for the Catawba will only last as long as he has not fully tried other *better* varieties, and although he seems to think that there are none which are better, we could name a dozen, easily, which he himself will have to concede are *better*, and we know them to be *more reliable*. But we can safely leave his cure to time and experience in this matter.

We can also not see why the Norton and Cynthiana should be planted farther apart than Concord. We would think the reverse the better course, as the Concord is the stronger grower by far.

We must also differ with him in regard to the Delaware. Good as that grape is, it is far from being *universally* successful, and has given rise to more disappointments than any other grape, the Iona perhaps excepted. We would advise to try it very sparingly at first. ED.]

THE SEPTEMBER NUMBER.

If we should be behind time with this number, we pray our readers to blame neither the editor nor the printer. We sent our first manuscript promptly, but the postmaster at Mor-

rison saw fit to return the mail of that day (August 15th) on the 17th, thus delaying it for several days. So much for prompt postmasters.—EDITOR.]

REPORTS ON GRAPES.

BLUFFTON, Aug. 19, 1870.

These ever welcome tokens of success from our friends are coming in rapidly, and we are enabled to present our readers with quite a number of them, from all parts of the country. They present perhaps the best and most reliable record of successes and failures with varieties, and all of our readers should send us such items, as they are of great service to those who wish to plant, and are at a loss what varieties would do best in their locality. Some one of their neighbors gives *his* experience through our columns, and it serves as a guide to them at once.

Of the crop here, we will only say at present, that it is the largest we ever saw, and the grapes promise to be of excellent quality. Nearly all varieties have done well, except where in parts of our vineyards the crop of the Concord was thinned by the early frost in April, and afterwards by hail. But this is only a small portion, say one-twentieth of the whole area, and the rest make up doubly for what that small portion has lost. In our bottom vineyards the crop of Concords, Ives, Hartford, and Telegraph is a glorious sight, and we think the vines in their fourth year will easily average 35 lbs. to the vine. The Norton is a most abundant crop, "through hill or dale," and it is only to be regretted that the wine of this noble grape seems to be so slow of sale. The Clinton is a failure. Little fruit, very uneven, and the leaves are covered with the gall louse. The Goethe is a splendid

crop, wherever strong enough to bear; so is Wilder, Massasoit, Lindley, and Rogers No. 2. Merrimack has a *big* crop in berry and bunch, but rotted some in our Experimental Vineyard. Rulander, Louisiana, Taylor, Maxatawney, Cynthiana, Martha, Creveling—all very fine. We will only say at present, that were we to plant for most *markets*, among all the well tried varieties, we would choose Massasoit, Wilder, Goethe, Martha, Creveling, and Maxatawney; for *white* wine, Goethe, Lindley, Maxatawney, Martha, Massasoit, Louisiana, and Rulander; for wine resembling Madeira, the Hermann; for *red wine*, Creveling, Cynthiana, and Telegraph. These are the so-called newer varieties, which we have tried to our satisfaction here, and of course does not exclude the old and well tried varieties, Norton, Concord, Herbemont, and Cunningham, nor would the list perhaps be suitable for *all* localities. We also had the pleasure to see fruit of four of Arnold Hybrids at our friend Miller's vineyard. Othello, not yet ripe, handsome grower, handsome fruit; will report about its quality later. Cornucopia, firm grower, medium, compact bunch, very fine quality even now, when not fully ripe. Aubuchon, loose bunch, berry looks very delicate and handsome; transparent, hardly ripe enough to judge of it. Brant, the earliest grape we know, earlier even than Mary Ann, and of much better quality, but with a slight Clinton scratch. They all seem to be healthy and good growers.

In our next number we will report in detail of all varieties which have come under our observation.

EDITOR.

—
ARENZVILLE, Cass Co., Ills., Aug 16, 1870.

MR. GEORGE HUSMANN:

As you desire to hear from every grape grower their results of observations and experience, I will give you mine, as near and in as few words as possible. The weather has this year, so far, been very favorable for grape growing; so much so that we expect a fine crop of the fickle Catawba, and consequently must have a good show for most of all the other varieties. I shall therefore not trouble you by describing all the most common varieties, but will pick out a variety here and there, and have my say about it.

Ives' seedling, as you said it would have when it got old enough, has a fine crop of grapes; but how it is going to make a wine better in flavor than Hartford or Concord I can not see, as I think the fruit is greatly inferior to the Hartford. Rogers' Hybrids: what a pity that the bunches of most of them are so imperfect! otherwise I would consider them among the best of our native grapes. Iona I do not like; even in this favorable year, it can not make any show. Isabella does better than last year; has this year fine fruit, and the vine is very healthy; if it behaves so well in future, I will take all back what I said against it. Herbeumont: no fruit this year, fruit buds all winter killed, with good protection of earth. Norton's Virginia, a good crop, commence turning black. Miles of no value by the side of Hartford or Creveling. Clinton and Taylor: no ob-

jection to their fruit, but don't like their foliage; Delaware all right and very near ripe. Maxatawney is growing in favor with me; prefer it to Martha. Casady, don't like it. Diana, fine this year, but I am rather on the look out with it.

I can not close this epistle without a little "brag" on my seedlings, of which I have several hundred growing; of these a dozen or so fruited this year; out of these, there are three or four which seem to be very promising; I will describe them as near as possible: The first that ripened was of a Catawba color, with a flavor more refined than Catawba, and almost without any pulp, berries of medium size, bunches imperfect (as it is the first year in bearing), commenced ripening before Hartford, in foliage very near like an Isabella. No. 2: the second that ripened is a white grape, berries round, almost without pulp, and of the quality you may judge yourself as I send you a few berries by mail to-day. The vine is healthy, and seems to be hardy; I think it a Concord seedling.

But now to my favorite; just imagine a vine three years from the seed, was never protected in winter, is about four feet high, had after it was pruned last fall four buds left on the vine, these four eyes pushed in the spring as many fruit bearing branches. Each branch three bunches except the top branch which has only two bunches, making eleven bunches in all; they are exactly like a Diana, of good size, with berries like the Union Village, all indications show for a greenish white grape; it is getting a little softer now, but it seems to be later than Concord in ripening, made a good growth of wood with the

heavy load of fruit, foliage large, deeply but otherwise like Hartford in foliage, likewise as healthy. If the quality of the fruit will be good, it is all I wish for; when they are ripe I will send you a bunch of them. If you do not receive any, you may consider the fruit poor in flavor.

One or two other seedlings I may describe when the fruit is ripe. What a variety will I have next year! when probably over a hundred of seedlings will bear. Could you not send me a little grape seed of the Hermann this fall. I can not fruit it till next year.

Yours truly,

HENRY TIEMEYER.

[The Rogers' Hybrids will improve in size of bunch when the vine gets older. We have bunches of Wilder and Goethe now which weigh a pound each. We think that there are at least half a dozen varieties of them, among the best grapes the country yet has. Your reports on seedlings are very interesting; the bunch of grapes you sent, arrived in a very dilapidated condition, and only a few berries were fit to taste. The berry is round, greenish white, in size between Concord and Martha, with little foxiness, sweet and good. It is certainly "promising well." Let us hear about the other seedlings. We do not wish to see the list of our native grapes increased, unless by something really better, in some respect, than any thing we have yet; but any one who adds a new one uniformly healthy and productive, and of better quality than anything we have now, either for table or wine, is a public benefactor in our eyes. We will send you some seed of the Hermann in good time.—E.P.]

SUNNY SIDE VINEYARD,
PUT-IN BAY ISLAND, O., August 8th, 1870. }

Mr. G. HESMANN.

Dear Sir:—While communications from wine-growers from many parts of the Union are contained in your valuable paper, it has been a matter of surprise to me, that of the islands of Lake Erie, which undoubtedly take a high place in regard to grape culture, very little has been said in the GRAPE CULTURIST.

Put-in Bay, Middle and North Bass, Kelley's, and Catawba Islands, are annually producing large quantities of grapes of superior quality. Being surrounded by water, we have a more even and cooler temperature in spring, retarding the too early growth of the vines, which exempts us from the damages of frosts after budding in most years, where other localities have to suffer.

Prospects for a good crop are bright this year. Mildew, which last year reduced our Catawbas considerably, was hardly to be found this year. A little rot has shown itself, but not enough to diminish the quantity of grapes to any extent to speak of; and if the weather remains favorable, we shall have an abundance of grapes. Most of our vineyards are yet planted with Catawbas, and many entertain the hope that this valuable grape will, after several failures, come out all right again. The next favorite for wine-making here is the Delaware, which never yet failed to produce a good crop. Concord and Hartford are doing first-rate, and out of the former, large quantities of wine are made, which begins to find a ready market. Besides this, experiments

have been made with Ives', Norton's, Rennet's, and other varieties, most of which promise to do well.

Preparations are made by several wine-growers to make wine on a larger scale here than in former years, and I think the amount will not fall short of several hundred thousand gallons.

Our grapes are having a good name far and near. A large amount is being shipped off every year for table use, as well as for wine-making.

If you consider my communications of any value for your paper, I will give you some more details in a future letter. Truly yours,

II. WETTSTEIN.

[We shall always be glad to hear from you, or any one in your section. If you did not find much about your region in our columns, it is because grape growers from there have failed to report. We are well aware of its importance as a grape producing section, and should like to have it well represented in the *GRAPE CULTURIST*. So, brother wine-growers from the Lakes, let us hear from you; you are entirely welcome to our pages. The Catawba seems to be fine everywhere, as is usual in a dry season, but it will not do to depend on.—EDITOR.]

GALVESTON, July 19th, 1870.

Dear Sir:—Your favor of the 20th ult. came duly to hand, and with it the eight copies of the *GRAPE CULTURIST*; in payment of same and for the balance of this volume, enclosed find \$2.

The delay in answering your letter arose from the fact that I wished to examine and compare with other papers of a similar character, which I

could not until the numbers came from the bindery, and which now makes a beautiful book.

Your work is the very best I have seen, and the information given is lucid and to the point. Again, your work approximates more to Southern wants in grape culture than works from New York or New Jersey, and their surroundings. I delayed my answer for a more important reason than those stated, viz: Galveston is passing through the severest drought I have witnessed in twenty-eight years. Up to this morning we have only had one shower in three months, and with some twenty varieties of grapes at my neighbor's, Mr. Stringfellow, I wished to test them. The Hartford Prolific, Goethe and Delaware stood it nobly. The Concord is a failure.

The Hartford ripened well, and all sold three weeks ago at twenty-five cents, wholesale. Delaware same time. The Goethe, now in market; large fine bunches; the best for market in the State. Clinton, bore much more abundantly than the others, but ripened a few at a time on a bunch and then shrivelled up. Other kinds not bearing in sufficient quantity to speak of. Adirondack did well. Hartford made the largest lengths of cane, Goethe next. Query—May we not next year have an excess of rain? If so, will report the kind that does the best under wet weather disadvantages. Our soil is drift sand from the Gulf, with a strata of quick sand, say at five feet below the surface, and a perfect loblolly in very wet weather at the top of the ground. With decayed vegetation, artificial

manures, etc., a vine will grow as long on our island in one year as with you in three. On my fence is a black Hamburg, grown from a cutting planted in February, that I stopped at eighteen feet, and has on it all its laterals. On my grape arbor is a Delaware planted this spring, one year old root, which has three main canes that will measure in all over thirty feet, which I stopped with three bunches of grapes well matured.

I have on my grape arbor, 70 feet long, 12 feet high, and 12 feet wide, a vine (from one root) trained under the ground and along each side, which answers to the Herbemont, which never fails, wet or dry, rain or shine; bunches from six to ten inches long; heavy shouldered, and tapering to a sugar-loaf point; grapes very small, but delicious, but not suitable for a market grape. Our greatest enemy is a small yellow-breasted bird, which will destroy a row of grapes on a bunch in less time than I now state the fact. This pest being so enormous we must plant white grapes; this bird will not touch the Goethe or Delaware. This fall, in a small way, I will test the varieties I think suitable for our climate; will open a vineyard; shall order some from you, which must be here by Nov. 20, 1870. Will post you if anything offers.

Yours truly,

N. N. JOHNS.

[Your letter is very interesting, as it comes from a region so far off, and we are glad to see that the Goethe seems also to do well with you. If you want white grapes you should also try Martha and Maxatawney. The bird you speak of, we suppose,

is the Oriole, also a great nuisance here, and as it is only here when grapes are ripe, we have no mercy on it, but kill it whenever we can. Let us hear from you again.—EDITOR.]

NEW EDINBURGH, Ark., July 8th, 1870.

MR. GEORGE HUSMANN, *Edr.* :

I have an acre in Scuppernongs, and a hundred vines of other varieties, consisting of Clinton, Concord, Salem, Iona, Norton's Virginia, Ives, and Eumelan; all young, and not yet come into bearing. Of these last, the most thrifty and promising are Eumelan, Concord, and Ives, according to order. The Eumulan seems to endure our hot scorching sun better than any of the others, and is making the most vigorous and healthy growth. Clinton, Salem, and Iona are subject to sun-scald in the leaf. As to the Scuppernong, this is its home.

You seem to prize the Herbemont *alias* Warrenton. It makes an excellent wine, but is liable to rot of a wet year. My father had an acre of it in Monroe county, Ga., thirty years ago, and made annually several hundred gallons of wine from it. It is yet bearing, and doing well. He trained his vines on the "low souche" or stem system, and made better grapes (though not so many) than on trellis.

I have another acre cleared for a vineyard, which I intend planting this fall, in Eumelan, Norton's Virginia, Cynthiana, and Ives. My reading and little experience thus far, incline me to believe that these, together with Herbemont, are the best wine-grapes for the South.

I insist on having the June number of the GRAPE CULTURIST. My wife loves to read it as well as I do.

Very truly,

JOHN M. DYSON.

[We have sent your missing June number, and are glad to find from manifold communications, that our readers do not like to miss a single number. It has been our constant aim to make our little periodical indispensable to them, and we are glad to say we have not lost any of our subscribers, except by death, since we started.

We can not see how so strong a grower as the Herbenont could be trained on the stem or souche system. We should think it would rot, if trained so low.—EDITOR.]

NEW FRANKFORT, Saline Co., Mo.,
Aug. 8, 1870.

MR. GEO. HUSMANN:

Dear Sir: Being at leisure, I concluded to write a few lines on grapes. The grape crop up here will be, on an average, a medium crop. Some few vineyards are just loaded down with delicious fruit; but there was some rot, some of the Catawba principally, the Concord next, and some other varieties less. I have noticed that the rot is far less where the wind and air can strike the vineyards fairly. Roger's Hybrids, Mary Ann, Martha, Cynthiana, Norton's Virginia are not suffering by the rot. The rot commenced with a small black speck, skin-deep, and gradually enlarged. In about a week the berry drops off. The loss by rotting this year will not amount to more than one-sixteenth, with the worst rotting kinds.

The area of ground in grapes in and around New Frankfort is twenty-five acres. They are located principally on the bluffs of the Missouri river, on limestone. The Concord, Catawba, and Norton's Virginia, are cultivated more than any other varieties; but Nicholas Schmidt cultivates some twenty-five varieties. All of the plants were bought of the Bluffton Wine Company, and seven-eighths were choice plants. Next year there will be some 300 barrels wine made in this vicinity. Most of the vineyards are planted too close, 5 by 4, 5 by 5, 5 by 6, some 6 by 6, and 6 by 7, and a little 6 by 10. Close planting with thrifty vines is a great annoyance. Wire trellises are getting much in vogue here now, people are quitting the stake system. Wine sold here at \$2.00 per gallon. Hardly any grapes sold, worth 10 cents per pound.

GRAFTING.

I think a few lines to the GRAPE CULTURIST might be beneficial to such people as are relying on grafting as a mode of changing or propagating new and valuable kinds in a short time. I grafted a lot of Catawbas last February and March, and did not save more than five per cent. of what I grafted, and I did it as well as any one could do it. And I had grafting done with similar bad results for several years in succession. I grafted on five year old roots and mulched with straw. The grafts looked like they would grow for a long time. Last year I had tolerable good success with April grafting, say four inches under the ground. If I ever graft again I shall mulch with

saw-dust. I only write these few lines to warn people that want to transform, by wholesale, Catawba plants into more valuable ones. I may try Mr. Husmann's new way, but that will be the last trial.

HENRY T. SCHMIDT.

[WE think those who planted so close, would gain by taking out every other vine in the row. We agree with you that it is not advisable to graft whole vineyards, but we hardly think you did the grafting "as well as any one could do it;" or the grafts were disturbed afterwards; for nearly every variety takes readily upon the Catawba, and we can generally make two thirds grow on that variety, if the stocks are good. We will give our new method in some future No.—EDITOR.]

—
COUNCIL BLUFFS, Iowa, July 17, 1870.

PRESIDENT GEO. HUSMANN:

Dear Sir: I have been reading the GRAPE CULTURIST and find reports of grape-vines planted, with their fruit and wine, which I read with a great deal of interest, and was astonished at the aggregate amount, in dollars, in Missouri.

Well, I will report as near as I can in acres in this county. Last spring ('70) outside of my own I found about five acres, and I planted eight acres. With the eight reported before makes sixteen for me, mostly all Concord. Five were set in 1869, and three are six years old. There are about ten acres in bearing in the county all told. So you see our folks don't pitch in as rapidly as you Bluffton folks, but notwithstanding their backwardness, I succeed well. I cover no vines in

winter except Iona. I have had three crops and the fourth well advanced. Last years' crop sold for \$1600, and made 430 gallons wine, a sample of which I sent you about the first of March, requesting you to report, but I have not heard from you a word. I sent it by express, and requested if you thought worthy, to put it on exhibition at your Association. I have a number of patrons that think it very good; what say you? My present crop is not quite as large as last year, but quality better, being large and healthy. I have had hard luck this dry summer with vines and trees going back. I lost one Martha, Wilder, North Carolina Seedling, that I got of you. Yours,

A. S. BONHAN.

[We never received the wine you mention, consequently could not report on its quality. I should be very glad to taste wine made so far north. We heartily congratulate you upon your success, and think you are doing remarkably well.—EDITOR.]

—
COLUMBIA FURNACES, DANVILLE, Pa., Aug. 1, 1870.
GEORGE HUSMANN, Esq.:

I cultivate some twenty-five varieties of Grapes. Those of the old kinds, such as Catawba and Isabella, are both mildewing, and the berries of the former rotting. The Union Village and Creveling are losing their leaves, and some of the berries of the Concord are rotting, say from one to half a dozen berries in a bunch. The Delaware and Martha, as yet, are perfectly hardy. My other varieties are not yet fruiting.

Respectfully yours,

M. J. GROVE.

COMMON SENSE *vs.* PROHIBITORY LAWS; OR, THE COMING MAN WILL DRINK WINE.—III.

The other day, as I was pinching my vines, a most tedious and lonesome work, as all vineyardists well know, my mind was busy at work, as a sound mind should always be, thinking of the many conflicting opinions held by mankind, and attempting to set reasons therefor; from fancy to fancy, from thought to thought, it finally reverted to the subject of *temperance*, as advanced now-a-days, a most natural thought, I hear you say, for a grape grower—it struck me that in taking the pen, as I have done, to help you on and advance my individual convictions, whilst the duties of a vineyard are more familiar to me—it might turn out that after all I had done nothing but catch a wolf by the ears—“*Auribus tenes lupum*,” as the Latins have said before me, and I felt uneasy I must confess; on the spur of the moment, had my eyes caught sight of a mouse-hole I would have gone straight for it, to hide my presumptuous head, for such it must be and no mistake. How I came to forget that in that jewel among cities, set near the centre of the country for CAPITAL purposes, I am told—you must be surrounded by talented writers, who could, if they chose to answer, bring argument upon arguments, pile Pelion upon Ossa, and thus crush to atoms my daring temerity, is more than I can explain; still it will not do to stand abashed, though I may be wrong in my convictions; though my knowledge and experience may be at fault, I have no proofs that

it is really so, until something has been brought forward more conclusive than what I have seen to this day. Let us again strike at the bushel.

Whilst pinching the aforesaid vines, a case in point, ludicrous in itself, but well illustrating the inconsistency and blindness of the misguided advocates of total abstinence, recurred to my mind. It happened lately in one of the fashionable churches out East—wonder if Christ ever suspected fashionable churches! I confess I was greatly amused to see how “we the saints” feel anxious and perplexed for the salvation of sinners that do not belong to their *new school* of total abstinence christianity. One of these charitable souls, who yearly handsomely pay their way to heaven, to the utmost satisfaction of those who pocket the money, went so far in his simplicity as to avow in the meeting that the question: was Charles Dickens a Christian man? troubled his mind, as he could not answer it satisfactorily to meet his peculiar (total abstinence probably!) views, poor soul! The grand high priest of the concern, who, I must acknowledge, is silently, quietly but safely coming over—as he grows old and wiser, which can not be said of every man—to that tolerant, patient, unbogated, rational religion towards which all men of sound mind and common sense necessarily and inevitably gravitate, gave his reasons for believing him to have been a christian, “nothing in his writings being found that might tend

to produce licentiousness or dissipation. He considered him as a man entitled to the highest and noblest honor, worthy of being reckoned among the best of men. On the single account of *drink* he would make an exception — Dickens belonged to the old school, who did not advocate temperance principles; *and he was glad that the old school was passing away.*"

Quibblers, Pharisees! ah, yes! thank God that you do not belong to that old school, a school that had for its teachers, Noah! whom God chose, amongst all men, to replenish a drowned-out wicked world; David! a man according to God's own heart, from whose loins was to come that no less wonderful and divine teacher, Christ! the Son of God, God himself!—go, right or wrong, Reverends, go and return thanks that you belong to a new, more insipid and less joyful school—return thanks that you are not such arrant sinners as these deservedly most honored and revered teachers.

Consistency, it appears, is not the jewel that belongs to this class of men; early last spring they issued a call for a National Convention, to meet at Pittsburgh, to advocate an amendment to the Constitution of the United States, making acknowledgment (otherwise the world knew it not) that Almighty God is the author of National existence; that Jesus Christ is the ruler of nations; that the Bible is the fountain of good words and religion.

Assuming, as they do, to be the representatives of Christ upon earth, this was a shrewd attempt to be declared *infallible*; to rule and govern the world in his name. Now if these

ambitious—I was going to say amphibious—water-drinkers sincerely maintain their devotion to the Bible, they can not be faithful to the total abstinence theory; if they believe no longer in the old teachers, they can not be faithful to Christ, and should not attempt to rule and govern in his name, as his ministers; nor can they be faithful to the American principles of Freedom and natural rights. They can not obey the Bible and fight against it at the same time; nor can the rank and file obey their politico-religious masters without rashly and wantonly striking at our Republican institutions. They may take whichever horn of the dilemma they please.

There are few things that I can regret not to have seen in this world, yet I shall always deplore the fact that I was not present at the theatre when a Roman audience, in the first surprise created by a noble but to them new sentiment, came down in thunders of applause to mark their admiration and reward the poet; it must have been an impressive sight worth being dead centuries ago. Terence lived about 160 years before Christ; but this noble sentiment, "I am a man, and hold nothing foreign to me that relates to mankind," sounds like Christianity itself, and will eternally live to do him honor. It rings as fresh now as in the astonishment of its first utterance. That sudden flash and explosion of heart which it sent forth in the unsusceptible bosoms of his iron-hearted countrymen, has been felt in every age and clime, and continues to be thus felt in the breast of every man who reads it. In it we have an insight of the soul's divine

original. Would it not prove that man is utterly lost to virtue and hope, were there no chords left to vibrate fervidly in response to so lofty an expression of human sympathy? It certainly would! but such is not the fact; "though dead Terence speaketh yet!"

I am a man, and hold nothing foreign to me that relates to mankind, therefore let none of my readers imagine for a moment that my pen, in digging a few holes in the bushel to let some of the hidden light out, is a friend to intemperance; far from it. Drunkenness, as a vice which lowers man beneath the brute, has no greater enemy. I am satisfied that it is an

evil with which society should grapple, to reduce or to hide it, but never forgetting that man should be dealt with as we find him, not as a few of us should wish him to be.

Friends of Temperance! Soldiers of a good cause! I am one of yours; your desire is my desire. Whilst I know that a glass of good wine will sustain a man, I know that if he drinks thirty, it will knock him down; we are mutually striving at a result, we simply differ on the means, let us understand one another. My next will make the attempt.

DR. AMPELOS.

GOLDEN HILLS VINEYARD, Nauvoo, Ill.

CONCERNING WINE.

By DAVID M. BALCH, Salem, Mass.

[We copy the following excellent article from the *Journal of Horticulture*, and, we trust, need not say to our readers that we indorse every word of it. We have long been convinced that only by *rational* improvement of the must can we hope to attain that perfection in our wines, of which they are really capable; and if here, as in Europe, the cry of "adulteration" has been raised, it has only been by men who either have not the slightest idea of the nature and component parts of wine, or who follow the practice of "improving the must" in secret themselves, and only try to detain others from it, because if it becomes general, they can no longer reap the sole benefit thereof.

This article will show them, what the most scientific wine-makers and the highest authorities on the subject

in Europe, think of the practice.—
EDITOR.]

Of the immense breadth planted with vines in the Northern, Middle and Western States, between 1863 and 1867, thousands of acres are now in bearing, and other thousands come into bearing every season. As the markets become fully supplied with fruit, and prices fall so that this method of disposing of the crop ceases to be remunerative, much of the product will fulfil its ultimate destiny, and be made into wine. The art of propagating, growing and training the vine is understood full as well by us as by any other people; but with regard to wine making we have much to learn, and need much practice to arrive at the best results.

It is no very difficult matter to produce good wine in those rare seasons

when Nature furnishes fruit to our hand in the best possible condition; but along the northern border of successful grape culture (just where vines have been most largely planted, and where the best wines should be produced) there is a deficiency of heat in most seasons, and the grapes consequently have too much acid and too little sugar to yield good wine. Art, then, must assist Nature. The processes of Gall and of Petiot, rightly understood and applied, entirely prevent the losses arising from insufficient ripening, banish flat, sour, and undrinkable wines from the market, check the production of brandy, and many ways work advantageously for the producer of wines, and for humanity. Yet mistaken and narrow views have led to much opposition to these methods; and have even caused them to be decried as specious forms of adulteration, by those who stand forth as champions of what they are pleased to call "natural wines."

The question has been much debated in Europe, and is likely to be in this country, as soon as increased production of wine involves it. It is, therefore, very desirable that this matter should be examined in all its bearings, and thoroughly understood. There is a very readable chapter on the subject in Dr. Mohr's excellent work, *Der Weinstock und der Wein*, of which I believe there is no English version attainable. Dr. Mohr's scientific reputation, surroundings, and pursuits give great weight to his opinion.

I translate the following from the chapter entitled "*Verbesserung des Weines*"—The Improvement of Wine.

"The vine is not an indigenous

plant; its culture demands the kindly uninterrupted care of man. In our district, moreover, in most seasons, its fruit is of a quality that leaves much to be desired. To us who dwell in fifty degrees of north latitude Nature often denies the requisite sunlight, and therewith sugar in our grapes and spirit in our wine. Add to this, that in just these seasons acid is sure to be present in excess, and a beverage is supplied us which ceases to afford enjoyment. That which is palatable to man is something quite decided, and restricted to certain limits. Wine with less than six per cent. of alcohol we consider flat, and with more than one per cent. of acid unpleasantly sour. Now if, in a cold season, Nature affords us a must containing from twelve to fourteen per cent. of sugar, and from one and five-tenths to one and eight-tenths per cent. of acid, we must of necessity set aside as undrinkable the natural wine resulting from such must, or make good the deficiency due to climate in some way or other; and in this conjuncture arises the question, Is the perfecting of natural wines admissible or not? This question has been considerably agitated in the last score of years, but has not been treated with calmness or circumspection by either party, chiefly because self-interest has mingled in the debate. It is scarcely possible that there should arise any doubt that one may through art supply the failings of Nature, for on this our whole mode of life is grounded.

"Our clothing, our dwellings, our furnaces, and gas lights are by no means natural, but mere appliances

for making good the deficiencies of Nature in our country. And why, in the case of wine alone, shall we sit with idle hands, while we permit ourselves to convert it into an agreeable drink that barley which Nature has destined for bread. Yet we always hear the word 'natural wine' given with an intonation, antagonistic to our processes for correcting the faults of Nature. There is no natural wine under the fiftieth parallel of latitude, for the grape itself is not there a natural product. When upon a declivity we first blast away rock with powder, hoist to the place basketfuls of earth, and plant a vine there, can we call its fruit a product of Nature? And so it is. Nature is true everywhere; but who bids us cultivate a plant of the south on our northern hills? If we *will* have it, we must also supply the requisite conditions, and we *may* have it. Man is, of a truth,

'The lord of Nature, and she loves her chains,
Exerts her strength in contests manifold,
And from her wildness mounts all beauteous
at his call.'

"Self-interest has given a sharp edge to the debate. The owners of superior vineyards fear that, aided by science, every one will produce wines of as good quality as themselves, and at a lower price; and that they will consequently lose their monopoly; and in this they think rightly. We will not here disparage men who are fighting *pro domo*, nor will we, on the other hand, retreat from the great principle, that the welfare of all is to be preferred to the interests of the few. If these men are right in producing from their wine hills the best wine possible in the simplest way, then are the possessors of inferior

sites also right in supplying the needs of their harvest by proper treatment and additions, and both are entitled to just so high a price as they can obtain in the open market. I do not reply to the objections that these artificially prepared wines are unwholesome, will not keep, are not relishing: these are all falsities. But that the natural wine of 1850 was sound, pleasant, and durable, not even the advocates of monopoly dare affirm. A wine with from one and five-tenths to one and eight-tenths per cent. of acid is not potable; we must either throw it away or improve it. The need of improving wine indeed made itself known betimes, and the champions of monopoly opposed the idea even in antiquity. We are at present acquainted with three essentially different methods for bettering wine.

"First. Chaptalizing: adding sugar to the must.

"Second. Gallizing: reducing the acid with water and adding sugar.

"Third. Petiotizing: treating the expressed marc with water and sugar.

(A minute description of these processes here follows, illustrated with cuts; after which the argument continues.)

"It is well known that the consumption of beer was never greater than in the series of bad wine years which lie between 1847 and 1857. The wine in its natural state was really undrinkable, and the injury thus inflicted on the prosperity of the country immeasurable. The wine producing communities were brought near to beggary; distress of property, emigration, and, in some places, famine-typhus, resulted. The conversion of barley into beer is ca-

lamentous, as regards national economy. Barley grows like rye and wheat, and affords elements of nutrition. It is capable of nourishing men and fitting them for labor. But in the brewing of beer we separate its most valuable constituents, in a form that is only serviceable for feeding cattle, while from the far less valuable portion, the starch, we prepare a drink, which to be sure has its excellencies, but can very well be replaced by moderately good and light wine. Where barley grows either wheat or rye can grow, or we can use the barley like these; but where the vine flourishes cereals can rarely be cultivated. In the grape, the nutritive elements which separate in the ferment are unimportant; but they form the chief part of grain. The nutritive powers of beer are fabulous. If it is to nourish, we must at least take a crust with it.

“But it is quite certain that a man will be perfectly satisfied with, and supported by, that quantity of barley in the form of bread, which, as beer, he tosses off contentedly, with the wish for more. But I by no means desire that men shall eat barley bread and drink water with it; let them have white wheaten bread for food and wine to drink; and this can be easily compassed when our barley fields are sown to wheat, and our wines, unpalatable in the majority of seasons, made pleasant by simple modes of treatment. These processes are neither so artificial or unnatural as that of beer brewing; indeed, there was a time when the addition of hops to beer was just as much decried, and even made punishable by law, as the treatment of acid must with sugar is

now decried, and sought to be made a punishable offence. But all this can not mislead us to slight the general good for the whims of individuals, especially when no actual difference can be found between choice natural wine and well-prepared sugar wine. Soon after the publication of Petiot’s process, the opposers of the method in Burgundy applied to the Minister at Paris for protection against this branch of industry. His Excellency applied himself to the affair quite seriously, and bade the complainants furnish him with the exact difference between natural and sugared wines. ‘There is none at all,’ was the naturally despondent reply. And in fact there is no difference whatever. No judge of wine, nor any chemist, can with certainty give the tests which distinguish an imitated from a natural wine.

“It is true that the opponents of artificial wines affirm that they can recognize them without fail at the first sip; that they give one the headache; that one desires no more than a single glass. But all these assertions are empty falsehoods. I have myself seen instances where practised wine-tasters, in their fear of being overreached, have declared perfectly pure natural wines chaptalized, and been well laughed at for their pains; and other cases where they were not able to pick out the sugared wine from among mixed samples. But, as the Burgundian gentlemen told their minister, there is no difference whatever, except that among natural wines there occur many sour, flat and undrinkable, which in the case of wines scientifically prepared is impos-

sible. The opponents of methods for perfecting wine and making it plentiful, the monopolists or Puritans, are often at the trouble of citing authorities. After correctly understanding a subject I make very little of authorities. But I would call to the remembrance of these gentlemen, that not only Liebig, who, like all other chemists, is distrusted by them, has expressed himself for the admissibility of the method, but that even the most celebrated writers on wine—Mulder, Maumene, Von Babo, and Bronner—have warmly taken the process under their protection. These men, who have a deeper insight into the essence

of wine than all the so-called producers taken together, and are moreover wholly free from self-interest, have recognized in the properly conducted method for perfecting wine, a step in advance and a gain for humanity. Now where rests the fancied wrongs of the proprietors of choice vineyards? Just here: that in bad years it is no longer they alone who can produce drinkable wine; that they can no longer obtain the ridiculous prices they demand for the object of their monopoly; or, as they say themselves, they can compete no longer.

(To be continued.)

From "Scraps" gathered from "Wine and Fruit Reporter."

TEMPERANCE.

Ovid gives the following prudent advice!

"I own, I think of wine the moderate use,
More suits the sex, and sooner finds excuse.
It warms the blood, adds luster to the eyes'
And wine and love have ever been allies,
But carefully from all intemperance keep
Nor drink till you see double, lisp or sleep."

Another poet sings in a similar strain!
Three cups of wine a prudent man may take
The first of them for constitution's sake
The second to the girl he loves the best
The third and last, to lull him to his rest
Then home to bed. But if a fourth he pours
That is the cup of folly, and not ours.
Loud noisy talking on the fifth attends;
The sixth breeds feuds, and falling out with
friends:

Seven begets blows, and faces stained with gore;
Eight, and the watch patrol breaks ope' the
door;
Mad with the ninth, another cup goes round
And the swilled sot drops senseless to the
ground.

The following piece of sound logic
was certainly compounded by "the
partaker of wine as he should be,"
namely *temperate*.

Good wine makes good blood
Good blood causeth good humour
Good humour causes good thoughts
Good thoughts bring forth good deeds
Good deeds carry a man to heaven.

ERGO.

Good wine carrieth to heaven.

THE ZYMOECHNIC NEWS.

Mr. Fring's informs us that he is unable to continue the publication of that monthly, as he found it a losing business. To those who have remitted their subscription, he offers either to refund seventy-five cents, or send them a receipt to make white wine from red wine grapes. They will please correspond with him, and let them know which they prefer. His

post office address is Centreton, Centre Township, St. Louis Co., Mo.

We are sorry that the enterprise has met with so little success, but we know from dear experience, how hard it is to keep up a Journal devoted to a specialty, and think that it would have accomplished much good if continued.—EDITOR.]

EDITOR'S LETTER BOX.

KINSTON, N. C., July 23, 1870.

GEORGE HUSMANN, Esq.:

Dear Sir: I have received two numbers of the GRAPE CULTURIST; am already more than compensated for the price. Your article, "Wine Cellars," in the July number, is particulary interesting, as I had felt considerable anxiety on that subject. How do you build the ground floor and foundation? Do you press off your wine in this cellar or store-house? Or do you have a separate apartment for pressing? Do you mean by "planting in holes," not entirely filling the holes? If not, how do you plant your vines without "planting in holes?" I have some vines growing on old land: vines grow luxuriantly, but grapes rot. Would you advise manuring with leaf-mould this winter to prevent it? Is Norton's Virginia easily propagated by grafting? Is Elsinburg good stock to graft into? Is golden willow the kind used in making baskets? Do you tie with twigs or bark? Please answer the above questions in your journal, and oblige, Yours very respectfully.

W. L. KENNEDY.

[We have pressed our wine in the same room, but that can also be done in a separate building. We have left the ground floor as it was, only scattered gravel from a creek bed over it. The foundation of the walls is made of stone. By "planting in holes" we mean only making holes in the unplowed ground, without stirring the ground all over by plowing or digging. These form sinkholes for the water,

and give the vines "wet feet," as the common phrase is. You will prevent the rot by pruning longer, giving the vines more to do; and *early* summer pruning, giving the vine better circulation of air—not by manuring. The very fact that your vines grow luxuriantly shows that they need no manure. It would only increase the rot. Norton's will graft well on Elsinburgh, or any of the *Aestivallis* class; but we would advise you to graft *Cynthiana* instead, as it makes a still finer wine, of the same character, but more delicate, and of finer flavor. Golden willow is better adapted to tying than baskets, as it makes numerous small branches. The best basket willows we know are the green and brown osier. We tie the old canes in spring with willows, the young growth with pawpaw or basswood bark. Corn shucks, pulled into strips and kept moist, are also good tying material for the young growth on trellis.—ED.]

DERBY FARM, AIKEN, S. C., June 22, 1870.
GEO. HUSMANN, Esq.:

Dear Sir: Inclosed please find \$5.00 (five dollars), for which send me by mail to this place addressed as above. The "Grape Culturist" Vol. 1 and 2. "Husmann's Cultivation of Native Grapes." If the amount is not sufficient I will forward the balance on receipt of bill.

This is a great grape growing region. I have forty thousand vines in full bearing chiefly Catawba, Burgundy, Warren, Clinton, Black July, Concords &c., besides about one mile

in arbor of "Scuppernong" Grape. There is no rot or blight so far this year. I reckon there is about a quarter of a million of Catawba &c., and the question is what shall I do with them? We are in easy access to Northern markets, and our grapes will be ready for shipment in about thirty days. Our wine of last years vintage is much approved, and this year we shall probable make five thousand gallons, besides *shipping grapes*. I accidentally saw your June number and hence this letter.

Yours truly, J. C. DERBY.

[Thanks for your favor, and interesting communication. You ask what shall we do with the grapes? Market what you can get good prices for, and make the balance into wine. It will always find a ready market, *if good*. EDITOR.]

—
EL DORADO, August 2, 1870.

GEORGE HUSMANN, Esq.:

Dear Sir—I notice what you say of my article written in December, in your last number. If you complain of reading my writing, what would you do with Horace Greeley's? But then there might be some honor in trying to decipher his hieroglyphics! I dont think you deal with my article fairly. First in delaying its publication until all interest in the controversy has subsided, and second, in criticizing on it without publishing it. It is certainly enough for you to take a pull at it, after publication, and let the world judge. I should like to see it in your journal; but if it is not agreeable to publish it please return it, as I did not keep a literal copy.

Every one of my bunch grapes, ex-

cept a few Isabella on one vine, has rotted. So far as I can learn, it is a general thing south, except at my friend Col. J. C. Wright's. His vines, however, are very young, and he has been in one of those spots which have had no rain. Owing to the extreme wet during the flowering season the most abundant crop of flowers I have seen for years failed to fruit more than a moderate crop this year, on the Scuppernongs. Extreme wet weather prevents fertilization, in them as well as other kinds, but never to the extent of a failure, at the flowering season.

Yours truly,

JOHN H. CARLETON.

[WE trust you are pacified by the appearance of your article in July number. Your article was dated March 15, 1870, not Dec., as you suppose. We reserve to ourselves the right of choosing for our readers, what we think the most useful and interesting among our correspondence, and we cannot say that we consider your article in that light, but thought it could well bear postponement. We do not criticize your *article*, in our remarks in answer to your letter, but only the manner in which *all* your communications are written. In this letter, we had again to dot almost every *i*, and put a comma to every period, to prepare it for the press, and we think this could easily be done by yourself. Your handwriting otherwise is plain enough, this is simply a neglect, which you can easily remedy.

We shall always be glad to hear of your success, as well with the Scuppernong as otherwise.—EDITOR.]

MONMOUTH, Ill., July 29, 1870

MR. GEORGE HUSMANN:

Dear Sir—In the July number of the GRAPE CULTURIST, you ask your readers to report the condition of the grape crop, in their respective localities. There is a number of small vineyards near this city. The leading varieties are Concord, Delaware, Clinton and Catawba. With a sprinkling of various other kinds, such as Norton's, Ives', Alvey, Hartford, North Carolina, Creveling, Rogers' Hybrids, and others of the newer kinds not yet in bearing. Last summer's excessive wet, with the early freeze of October, proved disastrous to many vines in this region. The Delawares dropped their leaves early in the season, and failed to ripen their crop, or ripen their wood; consequently were killed down to the ground, no bearing wood and no grapes this year. Nearly all the other varieties came through safe or with slight injury, and we are having a fair average crop.

There has been but little wine made here as yet. We generally depend on the home market for our grapes, and the grape season is so short, that we feel greatly the need of some plan by which the season could be extended two or three months. Could you give us any instructions in the GRAPE CULTURIST on the subject? Such a house as you have for your wine, as described in the July number, I think would be just the thing to keep fruit in, either grapes or apples. Please direct to the best mode of boxing up grapes, and what amount of ventilation would such a house require to insure the keeping of the fruit. Another matter: please tell us how to bottle

our wine, to prevent the corks from shrinking. Do you soak the corks or use them dry? Respectfully yours,

J. FINDLEY.

[Plant the earliest varieties, one of which is the Mary Ann, for early marketing, but above all things, plant *late* varieties, such as will ripen after the rush of common varieties is over, and keep a month or so. Late grapes are less subject to the attacks of birds, and produce more and better fruit, than early ones, and will bring even a better price in market. With a house such as we have for storing our wine, well ventilated by windows near the top of the wall, would be the thing. Pack in small, shallow boxes, using thin paper below and above, and the Goethe and Rogers No. 8, as well as Wilder, will easily keep until Christmas, and could then be sold at good prices.—EDITOR.]

CLEVELAND, Ohio, Aug. 3, 1870.

MR. HUSMANN:

Dear Sir: The following I cut from the Cleveland *Herald* of July 30, 1870. Please give us your opinion, through your valuable monthly, in regard to what he says on summer pruning and the black rot.

And oblige, W. S. B.

AMONG THE VINEYARDS.

Kelley Island is the largest of lake Erie in American water, containing twenty-eight hundred acres, about one thousand inhabitants, and eight hundred acres of vineyard. I find the vines here, as at Put-in-Bay, loaded to excess with grapes, and the fruit some-

what affected with black rot. No great fear is apprehended, however, for if one-half of the present burden of the vines should be removed, which is not probable, there will be enough left to entirely satisfy the grape growers. The question as to the cause of black rot is somewhat mooted here, a few believing that the disease is not climatic, but caused by an insect working at the stems of the grape. Examinations under a glass show the stems of diseased fruit to be perforated, and sometimes girdled, though no living insect has been discovered which is believed to be the cause of the injury. Although this theory is not generally credited, there is a possibility of there being some truth in it, as affected and perfect fruit are found in the same cluster. It will be remembered that smut in wheat was once believed to be a fungus growth, or climatic disorder.

As averse to the insect theory, black rot appears in muggy weather, and all stems perforated and girdled by insects do not fall into decay. Scientific investigation will develop new facts, and determine actual causes, no doubt, before many years more shall pass.

Nearly all of the vineyards upon this island are now in full bearing condition, but few acres of new having been set during the past three years. Some of the old ones, upon thin shelled soil, have been abandoned, not yielding enough to pay the trouble of cultivation. Three-fourths of the vines are Catawba, and nearly all of them are trained upon trellises. Summer pruning has gone almost entirely into disuse, because it was

proven to be an absolute injury. In the first place it was likely to produce a late setting of fruit, the excessive amount of sap developing buds which nature designed for the following season; and in the second place, the per cent. of must was materially lessened by exposure of the fruit to the strong sunlight, which for wine-making very much detracted from the value, but for packing made no particular difference.

This island contains one of the largest, if not the very largest, wine cellars in this country. It was made by excavating a hill-side, quarrying out stone, and has a capacity for holding one hundred thousand gallons of wine. This cellar is owned by a stock company, composed of the heaviest vineyardists and wine makers.

[We believe that black rot is not occasioned by insects, as it will not appear in dry seasons. It is caused by murky weather and confined air; appears mostly on vines with an excess of wood growth and little fruit. Longer pruning, giving the vines more to do, and summer pruning, *early*, are the best preventives. If the *old* practice of *late* summer pruning has fallen into disuse, so much the better. But *early* summer pruning should take its place; or, in other words, *rational* summer pruning should take the place of cutting, slashing and maiming. Better not summer prune at all than to follow the latter. The first, which we consider *indispensable* to bring the fruit to its highest perfection, has been explained in our pages often enough.—EDITOR.]

Cash Advertising Terms for 1870.

TWENTY CENTS PER LINE, AGATE TYPE, EACH INSERTION.

Cover Pages Twenty-Five Cents per Line.

BUSINESS CARDS, FIVE TO SIX LINES EACH, \$15 PER ANNUM.

1,000,000

GRAPE VINES FOR SALE,

Of all the Leading Varieties, true to name.

As I am *bound to sell*, will sell LOWER than any one else.

CONCORD VINES, good two-year old, only \$25 per 1,000.

Other varieties in proportion. Also, Currant, Gooseberry, Strawberry, Raspberry, Blackberry, Rhubarb, Roses, and other plants.

Apple Trees, one, two and three years, very cheap.

I will also take good Western Lands, at cash price, in trade.
Address, and send for Price List, and three new Essays on Grape Culture, to

Dr. H. SHRÖDER,
Bloomington, Ill.

Grape Vines! Grape Vines!

FALL OF 1870!

We offer our usually large and selected stock of all standard and new varieties, including

SALEM,	MERRIMACK,	IONA,	CYNTHIANA,
WILDER,	GOETHE,	HARTFORD,	MARTHA,
LINDLEY,	CONCORD,	DIANA,	EUMELAN,
AGAWAM,	DELAWARE,	HERBEMONT,	WALTER.

SALEM A SPECIALTY.

Our stock of plants will be unequaled, and quality of superior excellency. Salem, with us, is bearing a fine crop of fruit, and must soon become one of the leading varieties in cultivation. It fulfills all that has been claimed for it. For circulars, etc., address

I. H. BABCOCK & CO.,

Lockport, N. Y.

WANTED.

WANTED—An industrious energetic man experienced in grape growing, to take charge of a young vineyard situated one mile and a half from Little Rock, Arkansas. The location is a beautiful table land, on a bluff elevation of some three hundred feet, on north bank of Arkansas river, overlooking the city and railroad depots, convenient to both; and is, all things considered, the most desirable in the State for a large vineyard. A partnership with responsible party of some means preferred, but this not essential. Correspondence solicited. Address, J. W. MARTIN, Little Rock, Ark.

WANTED several active, enterprising salesmen, to sell wines and plants for the Bluffton Wine Company. Parties wishing to engage, should address,
WM. WESSELHOEFT,
Secretary Bluffton Wine Co., Bluffton, Mo.

WANTED—At the “Ouachita Vineyard,” near Hot Springs, Arkansas, a competent man, to take charge of vineyard, orchard, small fruits, and select market garden—an accomplished, sober, industrious man, one who can give satisfactory testimonials of integrity and worth. To a suitable person with family, who can furnish desirable help, an interest in the proceeds or wages will be given. I would prefer a married man whose family fully understand dairy operations, particularly the manufacture of butter and cheese. Hot Springs always affords a good market for all supplies.

sep70-2t GEORGE W. LAWRENCE, M.D., Resident Physician.

PUBLISHED AND FOR SALE

BY

CONRAD WITTER,
ST. LOUIS, MO.

MUENCH, FREDERICK, *School for American Grape Culture*. Brief but thorough guide to the laying out of vineyards, the treatment of vines and the production of wine in North America.

MUENCH, F., Amerikanische Weinbauschule und Weinbereitungslehre, etc.

Either of these books will be mailed free of postage on receipt of one dollar.
HUSMANN, GEORGE, *The Cultivation of the Native Grape and Manufacture of American Wine.*

American Wines.
On the receipt of \$1.50 this book will be mailed to any address.

On the receipt of \$1.50 this book will be mailed to any address.
SCHMIDT, J. A., *The Diseases of Wine*, how to prevent and how to cure them, according to the doctrine of M. Pasteur.

This book will be sent, free of postage, on receipt of \$2

C. WITTER keeps a large assortment of books treating on the Culture of Grapes and Manufacture of Wines.

Catalogues sent on application. Please address letters

CONRAD WITTER.

122 S. E. corner Walnut and Second Sts., St. Louis, Mo.

HENRY TWITCHELL,

(Late of firm of JAMES FOSTER, JR., & CO.,)

OPTICIAN,

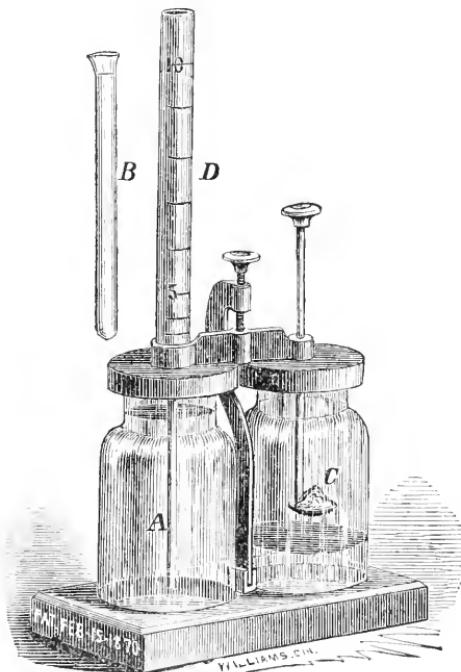
MANUFACTURER OF

HYDROMETERS, THERMOMETERS and GAUGERS'
INSTRUMENTS, SACCHAROMETERS,

AND INVENTOR OF

TWITCHELL'S

ACIDOMETER.



Price of ACIDOMETER FOR MUST OR WINE	\$10 00
Price of SACCHAROMETER (SILVER).....	10 00
Price of OECHSLE'S MUST OR WINE SCALE.....	10 00

Price list of other instruments sent, on application to

HENRY TWITCHELL,

132 West Fourth Street,

CINCINNATI, OHIO.

sep70-3t

CHOICE VARIETIES OF

Grape Vines, Strawberry Plants, Raspberry, Blackberry & Gooseberry.

Also, a few Peach and Cherry Trees, the finest growths. Particular attention will be paid to small orders of plants to be sent by mail. For sale by

SAMUEL MILLER, Bluffton, Mo.

Missouri Wines and Plants.

THE BLUFFTON WINE COMPANY

NOW offers to the trade, and to the public generally, its first crop of wines, grown at Bluffton, comprising, of red wines, Concord, Norton's Virginia, Ives, and Clinton; of white wines, Concord, Catawba, Hartford, Delaware, and Herbemont.

Our wines are of excellent quality, and we are sure that they will give general satisfaction to consumers. Our motto is, "Low prices, good quality, and quick sales;" and Wholesale Dealers in wines will find it in their interest to apply to us. Price lists sent on application.

We also call the attention of Grape Growers to our large and complete stock of plants of all the leading varieties. We shall make it our aim, in our fall trade, to supply our customers with the best of plants, and at as low rates as any reliable firm.

Descriptive Catalogues sent, on application to

WM. WESSELHOFT, Secretary,

BLUFFTON, MO.

Bushberg Vineyards & Grape Nurseries.

GREAT REDUCTION IN THE PRICE OF

GRAPE VINES

AND SMALL FRUITS.

SEND FOR NEW PRICE LIST FOR FALL 1870.

Our ILLUSTRATED DESCRIPTIVE CATALOGUE—"More useful to the Grape Grower than some works of much greater pretensions,"—Am. Agriculturist,—will be sent by Mail, post-paid, for only 25 cents, either in the German or English Edition, as you may order.

Agents Wanted to canvass for orders for Fall delivery. Terms liberal, profits handsome. Posters, Price Lists, etc., gratis. Address,

ISIDOR BUSH & SON, Bushberg, Mo.

GRAPEWOOD

TWENTY KINDS!

Immense Stock, especially of

Concord, Ives, Delaware, Hartford, Iona, Catawba, Isabella, Clinton, Rogers' Nos. 4, 15 and 19, etc.

Cut from Bearing Vines before hard freezing, and stored in frost-proof Cellars.

Very Low for Cash. Price List Gratis.

ALSO, LEADING VARIETIES OF GRAPE ROOT IN STORE.

Can ship South safely at any time.

M. H. LEWIS, Sandusky, Ohio.

TOBIAS WEIGOLD, COOPER, 1618 Jackson Street, St. Louis, Missouri.

Offers his services to Wine Dealers, as manufacturer of all kinds of casks, fermenting vats and cellar apparatus. He guarantees satisfactory work and lowest prices. Refers to some of the principal wine dealers in the State of Missouri, for whom he has made casks and vats for a number of years, and especially to the Bluffton Wine Company, No. 22 South Main street, where casks and vats of his manufacture can be seen by those interested in the business.

feb'69-tf

GREAT WESTERN GUN WORKS, NO. 179 SMITHFIELD STREET, PITTSBURGH, PA.

Double-Shot Guns, \$9 to \$100. Single-Shot Guns, \$3 to \$20. Rifles, \$10 to \$50. Revolvers \$6 to \$20. Discount to Clubs. Send stamp for price catalogue.

 Army Guns and Revolvers bought or traded for.

June 9-3m

HAVE YOU GOT MARTHA?

GRAPE VINES AND SMALL FRUITS.

[Nursery Established in 1857.]

A splendid stock of Vines and Plants are offered the coming Fall and Spring, including nearly every variety known to be of value. The popular and white Grape

MARTHA, OR (WHITE CONCORD,)

In large or small quantities. Also, Arnold's new Hybrids, Eumelan, Walter, Weehawken, Christine, Hine, and all valuable numbers of Rogers' Hybrids; also, Delaware, Iona, Israella, Concord, Hartford, Ives, Norton's Virginia, etc., etc., in all about one hundred distinct varieties.

Kittatinny Blackberries and Clarke Raspberries in large quantities, Jucunda and Charles Downing Strawberries, Downing's Seedling Gooseberries, Cherry, Versailles, White Grape, and Black Naples Currants, etc., etc.

Send stamps for Illustrated Catalogue and Price Lists to

apr69-tf

GEO. W. CAMPBELL, Delaware, Ohio.

D'HEUREUSE AIR TREATMENT.

PATENTED AUG. 6th, 1867, AND AUG. 3d 1869.

For FERMENTATION and GERMINATION, and for PRESERVING, PURIFYING and IMPROVING of Organic Substances.

Exceedingly useful in Malting, Brewing, Distilling, Baking, Manufacture of Wine, Cider, Fruit Wines, Fruit Brandies, Vinegar, etc.; in Sugar Works, Oil Works, Manufacture of Extracts, Preserves; in Storches, Transportation of Grain, Produce, Fruit; Purification of Water, etc., etc.

 Rights for States, Counties, Districts, or Establishments, for sale. Apply to

P. O. Box 6844.

R. D'HEUREUSE, New York.

T H E GRAPE CULTURIST.

VOL. II.

OCTOBER, 1870.

No. 10.

OCTOBER.

WORK FOR THE MONTH.

This month will, to some extent, be taken up by wine making, of which we have already treated in a separate article in the August number. After your vines have yielded their crops, and the first frosts have stripped them of their leaves, give them another plowing, throwing the ground well up around the vines. Tender varieties should be pruned first, then bent down along the trellis, a few shovels full of earth thrown on them to keep them in their position, and then well covered with the plow. This should be done with all varieties which are even of doubtful hardiness, and will richly repay *every* season, as the vines generally suffer more or less every winter. Plowing in fall has several advantages: 1st. All the leaves are covered up, will rot under the vines, and are just the kind of manure—in fact, in most cases the only one which the vine needs. 2d. It throws the ground well up against the vines, thus being a partial protection to them, leaving a furrow as a surface drain in the middle of the row, to carry off the water. 3d. It pulverizes the soil, leaving it exposed to the influence of frost.

Ground may also be prepared for fall planting, by plowing and subsoiling. Even if it should be impossible to plant

it, it will be all the better in spring for being exposed to the atmosphere.

In the latter part of the month plants may be taken up from the cutting bed and propagating grounds. Be careful to get all the roots you can, and especially not to burst them off at their junction. By *all* the roots we do not mean their entire length. If they are cut off with a sharp spade a foot from the vine they are abundantly long. But we mean that they should not be split or bruised.

Do not dig your plants, however, before they are *thoroughly ripe*. The brown color of the wood and dropping of the leaves are the best indications. Never allow the roots to get dry. They should not be more than an hour out of the ground, and, if the sun shines, the roots should be covered even during that time. Sort into first and second class, and, if you intend to keep them out of doors, choose a dry, sandy spot, and heel them in in rows, in a shallow trench, laying them slanting, and thin enough so that all the roots can be covered with mellow earth. Cover up to above the crown, and then throw some rubbish, dry leaves, straw, etc., over them to prevent their lifting by the frost.

Cuttings may be made, and the

vines pruned as soon as the leaves have dropped. We will try and give a few general rules about pruning in a separate article. A friend tells us that he pruned his Herbemont vines immediately after the first frost, made the cuttings, and had much better

success with them than usual. We advise our readers to try this, and report. We shall certainly do so, as the Herbemont is difficult to propagate if the cuttings are made late in fall, as usual.

CONCERNING WINE.

By DAVID M. BALCH, Salem, Mass.

(Concluded.)

“On this confession rests the condemnation of their position. If they are inclined to pass over the valuable husks of their grapes to the still or the dungheap, why should their neighbors be compelled to imitate so senseless a procedure? Can not the owners of estates which yield wines worth one thousand gulden the Stück, obtain just as well from their residues a double or threefold amount of wine, the price of which may reach four hundred or five hundred gulden; and is there not remuneration for the somewhat lower market price in the increased production? Have they not also at command a means for ennobling their acid must in bad seasons? Experience has already shown that properly treated afterwines are uncommonly agreeable, drinkable, and permanent; that they are subject to scarcely any wine distempers, and, indeed, for the natural reason that their small amount of ferment is more completely separated.

“Maumene says, expressively, that ‘such wines seem more *présent à boire*’ (an expression equivalent to our word *soffy*) ‘here on the Moselle and Rhine.’

“Herr von Babo says, in a letter,

‘I began my experiments with slight confidence in their success, but soon convinced myself of the worth of the method by the brilliant results obtained, so that I recognized in it the means by which we are enabled to avert the misfortunes of bad seasons; especially the poor vintner.’

“Herr Bronner, Agricultural Commissioner at Wiesloch, says, ‘I am myself a producer of, and dealer in, wine; but I do not hesitate, indeed, I hold myself in duty bound to stand forward publicly with the truth, because I can point to splendid evidence, which speaks in favor of the process. I have gone over the whole case, and consequently permit myself to pass judgment.’

“The dispute assumed a form peculiarly odious when the word adulteration was introduced. A gratuitous definition was first sought for the word, and this applied to the method. From this construction everything was exempt which they practised themselves. Selecting, pressing, racking, clarifying, sulphuring—all these were natural processes, but the adding of pure sugar was adulteration. In this sense we adulterate our coffee with sugar, and our beer-wort with

hops. The ridiculousness of such logic is plain enough.

‘Thou chain’st the spirit in one sounding word,
That, freed from fetters, marches on in wine.’

“It is not a adulteration, when one adds in the purest form what is already present, but ought to be present in larger quantity. With as good reason one might say that by the use of too little sunlight Nature adulterates our grape juice with too much acid and too little sugar. That is the fact, call it what we may. Since the addition of sugar could neither be prohibited nor prevented, a law was called for which should bind makers, by a fine of one thousand thalers, or corresponding imprisonment, to declare on sale, whether their wine was natural or perfected.

“Such a law would be a stillborn child, if there are no tests by which perfected wine can be distinguished with certainty, and if these tests are not so plain that the judge can give judgment by their help. But a fine of one thousand thalers for an action not punishable, such as the adding of sugar to grape must, was quite too high; and so the joint directors of the Rheinpreussischen Agricultural Society, as well as the general assembly at Kreuznach, laid their veto on the affair, and dismissed it from the order of the day. Bodily confine-

ment for adding sugar to weak must, or for concealing the act!

“It was ill-natured enough, but stupid. If an action be not punishable, its concealment can not be punished; and should the wine be in second or third hands, and should the buyer by sample be satisfied with the representations of the producer, there would be no further possibility of putting the law in force. The affair moves steadily on its way. The only way of protecting buyer, and seller, and consumer from injury, is the fullest instruction on the proper conduct of the process; and here we have the consolation, that the purer the materials employed, so much the better will be the wines produced. Everything agrees in this, that refined practice will lead to a result which will be beneficial to humanity, and to the vintner most of all, for his crop is, and will remain, the basis of all methods for improving wine. If science ever so strays aside, that wines are made from sawdust or coal tar, then let these gentlemen meet again and lament over competition.

‘But the sun in our far north land
Pours aslant his weakened rays;
Forest leaves may glow; our vineyards
Lack the ripe grape’s purple blaze.
Yet the north will live, and ever
All who live to joys incline:
Let us, then, by skill and science,
Teach our grapes to yield us wine.’ ..

THE COMING MAN WILL DRINK WINE; or, COMMON SENSE vs. PROHIBITIVE LAWS.—IV.

For the thorough initiation of my total abstinence friends with the views of my mind, I will begin with the beginning; that is, I will show that that which their object and purpose is to

eradicate is not worth keeping; it is the most pleasant, easy, and practicable side of all undertakings. I will settle the question that to be inebriated is to be in a condition in no way

commendable or enviable. I will further prove that human wisdom is nothing but absurd claptrap, a pretentious! folly; that vices, intemperance included, are worth more than their reputation, and that the Almighty Architect is neither wicked nor a fool, notwithstanding the daily attempts to prove him so from moralists—water-drinkers or otherwise, and all such like philosophers who have gone before me. Should any of my readers be of that sort that are easily scared, I beg of them to consider all this as pure jest, until having read my last chapter they may exclaim, like a noted judge, after hearing the final argument in a case before him: By Jove, that man is also right!

A sad sight it is, indeed, to behold the superb animal, man, so infinite in faculties! the beauty of the world! the image of God on earth! bereaved of his reason, his soul—as Milton expressed it, losing “the divine property of her first being,” imbibed and imbruted! the face divine all distorted! his nose, like a beacon, pointing out too plainly the cause, and the body too often become a repulsive mass of disease!—it is certainly one of the saddest pictures given to man to contemplate of his fellow man. The spectacle of an inebriate always disposes me to soliloquize, in the words of the more or less immortal Shakespeare: “O thou invisible spirit of alcohol, if thou hast no other name to be known by, let us call thee devil! O that men should put an enemy into their mouths to steal away their brains! that we should with joy, revel in pleasure and applause, transform ourselves into beasts. Drunk? and speak parrot?

and squabble? swagger? swear? and discourse with one’s own shadow? What a preposterous simpleton this same over-drinking makes a man. To be now a sensible being, by and by a fool, and presently a beast. O strange! Every inordinate cup is unblest. Thou rememberest a mass of things, but nothing distinctly; a quarrel, but nothing wherefore; till it pleases the devil, drunkenness, to give place to the devil, wrath; one imperfection showing thee another, to make thee frankly despise thyself.” Such are the effects of drunkenness, and no man can deplore them more than I do.

As the world moves along, new scientific terms, with more light, are ever making their appearance; one of the last is possibly Dipsomania—a craving for intoxicating liquors which partakes of the character of insanity. Whether thirst, in the usual meaning of the word, has anything to do with the maddened propensity for drinking, the moderate abilities conferred on me by a wise Providence precludes my giving an explanation; but of this I am too well aware: that it is one of the most distressing forms of mental derangement.

Tipplers, hard drinkers, men who go off on a drunken ramble, as they term it, for days or weeks, are nothing singular. We have all seen or heard of such persons—an annoyance they are to society, a discredit to themselves. State or local laws ought to take due care of such men; a timely punishment would bring many to their senses. I have seen it succeed in foreign countries, not so wise as Uncle Sam’s (?); why not here? It is towards such characters that I should like to

see a display of the much-lauded, eminently practical turn of mind of our people, and in which, for my part, I have but a limited confidence. I grant that where there is a dollar to be made or saved, the eye of our people is then very practical, for like the Jews of old, their real and true worship is the golden calf; but on this question of temperance our "eminently practical" people have shown a lamentable lack of practical ability. What would we think of a doctor who upon a case of yellow fever could find nothing better than to order the drug stores to be closed and the patient rubbed over with chalk? Would we not say that he was nothing but a quack—a true know-nothing? And yet this is the only plan which our temperance men, our common councils, our legislatures have been, in their sapient wisdom, able to devise. A truly practical doctor would first endeavor to find out the cause of the disease, and having found it, would wisely but fearlessly dose his patient, no matter how bitter the physic; he would then, if not arrest, at least circumscribe the spread of the contagion. Closing drug stores and whitewashing the sick will never cure jaundice or yellow fever.

But these tipplers, however, are not dipsomaniacs. The genus drinker consists of two species: he who with intervals of common sense, relieved at worst with short fits of delirium, still puts a good face on affairs, and conducts himself on the whole pretty fairly; and he who, by a peculiar condition of brain, sinks under a chronic and uncontrollable appetite for intoxicants: this last is the dipsomaniac proper, as I understand it. In my

rambles around this small ball of dirt, so small that I forget the great quantity that would be necessary to make up the size of the gigantic lantern around which it revolves, I have known men, good-hearted to a fault, intelligent, endowed with some of the best gifts of nature; blessed with peaceable, kind-hearted, handsome wives, around whom were grouped numbers of beautiful children, such as must compose the kingdom of heaven; some of them almost grown up, able to understand and see their father's weakness: yet these men, possessed of a warm heart, of an intelligent brain, able to draw burning tears from your eyes when speaking of family, children, and the duties of a father, too often forgot their own duties whilst speaking of those of others. They lacked the essentials—firmness and decision of character; their brains were not complete. In the sincerity of an earnest friendship, I could almost, had it been in my power, have done anything to cure them of a craving that thus limited their manhood. It is upon such men, I consider, that the whole power and influence of societies like the Good Templars ought to be brought to bear; in the performance of such a noble task these associations would remain within pure and legitimate bounds, and no sane man would object to their existence. Thus limited, I do not know but that to-day I would be ready to confide a few acquaintances to their brotherly care; when the time comes I shall see. Meanwhile, there is no doubt but society has a duty to perform towards those helpless beings, whilst at the same time legislating for its own pro-

tection. Should time permit, I may at some future period hint some of my views upon the subject, not with the belief that they will prove practicable, but with the hope that they may contain germs from which larger and better disciplined intellects can raise the much needed edifice.

I have said it: I am a man, and hold nothing foreign to me that relates to mankind! but while the individual has my deepest sympathies, mankind claims the sensible and rational energies of the mind. I am satisfied that in the grand conception of the universe the sufferings of the individual are ignored when the mass is to be benefited.

Sailors may think it hard that to punish a rebellious prophet like Jonas, their vessel might be wrecked, and the lives of many innocent victims involved, and it may appear so. In the pursuit of trade great are the sufferings of those that follow the sea. The tempest makes no distinction, and innumerable are the victims that are yearly engulfed by the ocean, but are the results of trade of greater importance to the world than the loss of these few lives—compared to the great mass? Has any feeling heart yet uttered its voice against such wholesale anguish and drowning? Lightning occasionally strikes a victim, but who will dare say that the thunderbolt, in its rapid and wonderful passage through the skies, had no greater purpose than to destroy an

innocent life. Man on the checkerboard of the world is like the soldier on the field of battle—the general has but one great object in view: victory and results.

Love, the sweetest and grandest of all human passions, so deep and so noble when coming from the soul, so terrible in its effects when thwarted, must yet be admitted as an evil that does, at least, match with intemperance. It overshadows the land. Most other evils are circumscribed in their influence both as it respects time and place: having done their work of desolation they pass away. Not so with sensual love. It prosecutes its work of human undoing absolutely without any restriction or limit whatever. Intemperance alone never numbered so many victims. It fills all lands with weeping and wailing, despair and death. Especially here, in this *Christian* country, who but sickens as he contemplates its ravages? Individuals and families, in every neighborhood, can be found upon whose peace it has made essential inroads: lust, rape, seduction, adultery, divorce, infanticide, and murder are its daily attendants; still we hear of no law wanted to proscribe it. If total abstinence is worth anything, this certainly is a proper subject to exercise it. Where shall we find the numerous hosts willing to join the Shakers?

DR. AMPELOS.

GOLDEN HILLS VINEYARD, Nauvoo, ILL

REPORTS ON GRAPES.

BLUFFTON, September 17, 1870.

According to our promise, we will now report, in detail, on all the newer varieties in alphabetical order:

Ayawam.—(Roger's 15.) Unusually healthy this season, moderate crop of medium size, loose bunches, strong Frontignan flavor.

Autrechon.—(Arnold's No. 5.) Very good for its first season, berry below medium, bunch long and loose. Looks and tastes much like Clara, but seems to be a better grower and more hardy.

Adirondac.—No fruit as yet, a very tardy bearer.

Allens' Hybrid.—Had but little fruit, fine quality, only fit for amateurs collections.

Alvey.—This grape seems to succeed remarkably well on our hills, and we know of none better in quality. It is one of the best, if not the best, we have tasted this season, but seems to require rich limestone soil, and an elevated position.

Anna.—Good in quality, but too feeble and delicate to be of any value.

Arrold.—So much like Cassady, that it will not pay to cultivate it besides this.

Barry.—(Roger's 34.) Very fine in quality, but subject to both rot and mildew.

Brant.—(Arnold's No. 8.) Healthy in foliage, fruit the earliest of all we have seen, sweet, good and sprightly, but with slight Clinton scratch.

Buxter.—Good bearer of very long large bunches, rather late, but may prove a good wine grape here and further south.

Berks'.—Very fine in quality, superior to its parent the Catawba, but subject to disease like it.

Bloods Black.—Great bearer of handsome compact bunches, nearly as early as Hartford, better quality, healthy, somewhat foxy.

Blue Dyer.—Has too much Clinton blood to suit us.

Cassady.—A fair crop; holds its foliage, but vines get too young here to judge of its merits in this location.

Clara.—Delicious, but too shy a bearer. Only an amateur's grape.

Creveling.—Very fine in quality, a very good crop on the hills, considering the age of the vines, has been healthy, and we think much of it, both as a wine and table grape.

Cunningham.—Suffered severely last fall, by early frost, has but little fruit, but the quality is fine, and the wood mostly ripe now so that we are sure of a fine crop next year.

Cynthiana.—A very fine crop of very perfect fruit; as usual.

Delaware.—The crop was light, as the wood did not ripen well last year, quality good, and a fine growth of wood.

Devereaux.—Suffered from frost, rot and mildew, quality very fine.

Diana.—A poor crop of very *felin* fruit. We do not consider it worthy of cultivation, even where it will succeed.

Essex.—(Rogers' 41.) Vines were young yet, but very healthy, and the quality of the fruit very fine.

Eirings' Seedling.—A little better than Isabella, but of same type.

Goethe—Splendid in every respect. Fine fruit, fine foliage, fine growth, a perfect feast to the eye.

Hartford—A very abundant crop, as usual.

Herbemont.—The crop is scant, for the same causes which affected the Cunningham, but we hope to bring it in next year.

Herbert.—(Rogers' 44.) Young yet, vine healthy, quality of fruit very fine, even better than Wilder, which it much resembles. Very promising.

Hermann—A splendid crop of very perfect fruit. The most promising *new* wine grape we know.

Hettie—Very indifferent, of the Isabella type.

Huntingdon—Small bunch, small berry, sets abundantly, but ripens unevenly, and drops badly.

Iona—Behaved better this season than we have ever seen it. Has a good crop of fair fruit, on the only vine we have.

Israella—Also tolerably fair, but in our opinion not equal to Creveling, and certainly not earlier.—EDITOR.]

[Continued in our next.]

EDITOR GRAPE CULTURIST :

I see that you are publishing reports from different localities on Grape Growing and Wine Making. Perhaps a few lines from Miami county, Kansas, would be interesting.

I commenced dabbling in grapes in 1863-4, as you know, for I purchased some of you. I planted mostly Clinton and Concord, and have a specimen of about twenty other varieties, but I have not given them as thorough cultivation as I would like. I have no horse, and I have to depend on

hiring, and consequently I cannot have work done when it ought to be. I have about six hundred Concords in full bearing, and five hundred Clintons planted, 8x10 feet. I think that about the right distance; would plant that distance if I were to plant one hundred acres. Concord and Clinton are bearing good crops; Clinton sheds the leaves and rots some. Most of the fancy grapes are worthless with me. The Walter, I paid five dollars for, has not made any progress in two years; just as large now as when I planted it. Adirondac—I paid thirteen dollars to get a start at that—it proves an entire failure. Creveling is not adapted to my soil. Catawba, Isabella, and some other varieties are doing better this year than usual. I have a single specimen of Iona growing on a fine sandy loam, on the top of a hill, that appears to do well; I shall experiment further in that direction with other varieties.

There are growing, in Miami county, about fifteen acres of grapes of various kinds, and by as many persons. We are not as enthusiastic as when we first entered the arena, but we are not entirely discouraged. I commenced with nothing, and had to experiment and find out what varieties would grow and make good wine. I think if I had planted Norton's Virginia, in the place of so many Clinton and Concord, I should have done better.

I made about one hundred gallons of wine last fall, as an experiment; mashed the grapes and pressed them with one of Hiebek's apple mills; fermenting on the lees from twenty-four to thirty-six hours, and one lot I

let stand one week, and, friend Husmann, *that is the best wine*. I consulted Husmann in my operations, of course. I had to contend with a great many obstacles—first, I had no cellar, so I could not control the temperature; then, I had to put the wine in a common room, in a plank house, the temperature up to 60 and 70° during the day and down to zero at night, but, for all that, I believe I have some good wine, at least it has kept here in the same room, with the mercury up to one hundred for a month, without souring in the least.

I made forty gallons of Concord gallized, twenty gallons petiotized, ten of Clinton, ten of pure Concord, from the ripest grapes, and a specimen of white wine from Concord; also, a sample of mixed grapes. All was a success. Indeed, I was happily disappointed, for I expected a total failure under the circumstances. I am satisfied that I can make wine-making and grape-growing a good business, and I expect to follow it up.

We need organized capital to succeed. We have no market here for wine, in fact, people do not know anything about Native Wine; they think if the wine does not appear like commercial wine (whisky and logwood,) that it is no wine at all. The temperance question, too, has a great deal to do with the sale of native wine. I think sometimes that our wine ought to be called by another name, people so abhor the idea of intemperance—whisky, fermented liquors, etc.—as though our glorious *native pure wines* had any relation to any of them, but this only shows that people can be educated to an error

and superstition as well as to sound philosophy and truth.

I will try and gather some statistics as to the number of acres, number of vines planted, and the amount of wine made in this county this fall.

Yours, A. GOVE.

[Thanks for your communication. We are glad to hear of your success in wine-making, and not a little proud that we hear of so many of our old readers who have followed our advice and made good wine.—EDITOR].

GLASGOW, Scott Co., Ills., Aug. 22, 1870.

MR. HUSMANN:

Dear Sir:—Seeing your request in the GRAPE CULTURIST for all grape growers to give you the No. of vines each one has in cultivation and bearing, I thought I would send you the No. that I have. My grapes are: Concord 104, Delaware 102, Iona 82, Isabella 21, Ives Seedling 24, Adirondac 12, 12 of different No. of Roger's Hybrids. These are all in their second year of bearing, and I have one hundred and eight more that will bear next year for the first time. I have the first named all planted out four and five feet apart in the row, and the rows all six feet apart; the latter are eight feet apart in the row, and the rows all six feet apart. They are all trained to the single arm and spur of the first, and the others are ready to train on the double arm and spurs. My bearing vines are only carrying about a quarter of a crop, on account of the late spring frost. There is also a little rot amongst mine. Do you not think it would be better for me to dig out every other vine where they are planted so close? Would it be better to dig out every

other one of the close planted before growing another arm, or wait until I grew another arm to fill the space with? Which is the best way to run the rows, North and South, or East and West? I have run my vines rows East and West. I think I shall plant an acre of vines yet, about a year from this fall. Could you not give us your new mode of grafting the vine that you had such good success with in the next *GRAPE CULTURIST*. I wish to graft some in the spring, and wish to be posted and ready for operations when spring comes. I have grafted after Fullers' plan with very poor success.

Respectfully yours,

HENRY MARDEN

[Of course your vines are too close. Dig out your vines first, and then train over the empty space. Run your rows parallel with the hillside, whatever the exposure may be. We will give our new mode of grafting in due time, but are too busy now. Suffice it to say that it is done in May, therefore you can well wait a little longer.—*EDITOR.*]

OSWEGO, Oregon, Aug. 29, 1870.

EDITOR Grape Culturist:

I drop you a hasty note just to let you know the progress of the grape crop in the Willamette valley: Delaware, Hartford, Allen's Hybrid, and Black July, are fit to eat, and some of the latter are in market; I presume some other kinds of foreign grapes are about ripe, but I have not got them in bearing yet. The Isabella is coloring, and Iona and Concord just commencing. Allen's Hybrid, Delaware, and some others were very much damaged by a heavy rain, which came just as they were in bloom, preventing their proper

fertilization. We have had an exceedingly dry and hot summer, and I don't think the grape crop will be quite as large or fine as last year. I will endeavor to make as full a report as possible of the different kinds at the close of the season.

Yours, very truly,

A. R. SHIPLEY.

[Please do so and oblige us and our readers.—*EDITOR.*]

EDGEWOOD, September 13, 1870.

FRIEND HUSMANN:

Our Conards have done well this season, berries larger than usual, but the prices rather low, still it is a paying business, if tended to properly. I sold eight tons of grapes, and have about one hundred gallons of wine fermenting in the cellar, or rather we hope it will be wine, and we hope some day that we will be able to send wine to market, that will be deserving of a name. And should you be traveling through this part of the country, please stop and see us, and try our wine, it would be a great satisfaction to us, to have your opinion; we are all new beginners at the business, and have to grope along the best way we can, hoping for the better, and we hope the day is coming when we will be able to treat a friend to some home made wine that will cheer up the heart and enliven the spirit.

E. A. HEGEMAN.

[Thanks for your invitation. We will try and profit by it some day.—*EDITOR.*]

CLEVELAND, Ohio, Aug. 25, 1870.

I suppose you would like to know how grapes are around here. I have talked to a great many and they all

say the Catawba has rotted worse this year than ever before; one man Mr. Merton says, out of two acres he won't have two hundred and fifty pounds; Isabella has not set well except in some few places; that is about all the kinds are grown to any extent, some Delawares and a few Ionas are grown; men around Cleveland as general thing seem afraid to plant any new varieties.

J. W. L. BARNEY.

[Sorry to hear that your people are so far behind the times. You should try and wake them up. Let them come out West and see us and our grapes, we will try and make converts of them.

EDITOR.]

OSWEGO, OREGON, July 28, 1870.

EDITOR *Grape Culturist*:

Since the date of my last communication the weather has been favorable to the grape crop, except that we had several days rain, just as Allen's Hybrid and Delaware were in full bloom, which prevented their fertilization to some extent, so that the bunches on those kinds are very loose. Other kinds blooming later were not so much affected. Since then we had some of the hottest weather ever known in this valley. The grape vines are looking splendidly. There is not the slightest symptom of disease of leaf or berry on any of my vines, either native or foreign. The berries of Concord, Diana, Hartford, Delaware, Isabella, Iona, Creveling, Allen, and Black July are almost full sized, and I expect to see some of them begin to color in a couple of weeks at farthest. My vines are all trained to stakes, except a few which are pruned to a head some

fourteen inches from the ground—a very popular method in California. I think it will succeed here. I propose to experiment with various modes. In the finest vineyard in Oregon they grow two or three canes from the ground and train them to a stake. At the winter pruning they cut all away but one cane, which is the lowest one. This they cut back to eight or ten buds which bear the fruit. This bearing cane is not tied up, but is permitted to bend over to the ground with its load of fruit. Two or three of the shoots nearest the ground are trained up to the stake and permitted to grow to its top, when they are checked. The remaining shoots are broken off just beyond the last bunch of fruit, and so they continue from year to year. The vines in this vineyard are about three feet apart each way, and the cultivation is all done by hand, and consists of simply digging up the ground in the spring with the vineyard hoe. The proprietors are French vinedressers whose ancestors followed the same business in "La Belle France." They raise magnificent grapes, and "lots" of them, and succeed in ripening them early. I should think that some of our German vintners would find a good field for their operations in this State, and I should be glad to see them.

Yours, very truly,

A. R. SHIPLEY.

AUG. 13, 1870.—Not being able to mail my letter till now, I open it to say to you that Hartford Prolific is coloring finely. No other variety shows the color yet.

A. R. S.

HAGERSTOWN, Md., Sept. 6, 1870.

MR. HUSMANN :

I might as well now give you some observations on our grape season here. We have had a very warm and rainy season. Our corn crop is very heavy, and wheat grew rank and fell, and of course the grapes suffered. Concords are very abundant, although they rotted much. Catawbas are a failure. I find where high weeds grew or the vines were on trees they are pretty good.

We are growing in this neighborhood nearly all the grapes that come out. I will notice the time of ripening of some of them in comparison with Arnold's hybrids. On August 7th, Christine, Roger's No. 3, and Brant became elastic in the green state. (I adopted this method in order to give the white grapes a fair trial.)

August 10. *Cornucopia* and *Canada* came with *Adirondac*, *Rebecca*, *Ives*, etc. Then a few days after *Autuchon*. *Othello* died the first winter. *Brant* seems to have considerable sugar in its composition, but tastes too much like our little bird grape growing wild here, to be pleasant. *Cornucopia* has much the flavor and sugar of the *Alvey*. *Canada* is the sweetest and best flavored. *Autuchon* is not yet ripe enough to pass sentence on, but I fear it will lack sugar. These vines grow well and stood this summer bravely. I believe the drawings of them are correct. The *Canada* has a beautiful compact bunch. The Arnolds were grown by Dr. Harvey, in town. I have several hundred growing in an open poor field, and they grow well, and I think they will produce a better article than those

grown in a rich soil. My *Marthas* are quite ripe, and they turn brown and rot. We have still frequent showers and sultry weather. If that should be common to it, it will prove a very serious thing, for I think it is the best white grape. JOHN H. HEYSER.

[The brown color which the *Martha* sometimes assumes, is not rot, as the berries still taste quite sweet, and it does not injure them for wine making. We think you will not find it prevalent nor very injurious. Your notes about Arnold's Hybrids are very interesting, and correspond with the experience here.—EDITOR.]

ROLLA, Mo., Sept. 5th, 1870.

GEORGE HUSMANN, Esq. :

Dear Sir:—The last cold spell in April killed most of the buds on the vines in our county, but still we have a fair crop. The must is of much better quality than last year, *Concord* averaging 78° on Oechsle's scale. Of the vines planted this spring, no more died than last year, although we had hardly any rains since April, not one heavy enough to wet the ground through. You advise deep planting of the *Norton's Virginia*—at least deeper than *Concord*. Now last year Judge Perry, a neighbor of ours, set out 100 *Nortons* no deeper than six inches, and all grew but five. We set out the same number deep, and lost about 40. Our plants were very well rooted, and had not suffered any when we received and planted them. This year we set out 100 more of very poor plants, much inferior to those of last year, no deeper than six inches, and we lost about eleven. Another neighbor who planted several

hundred this spring, and who also planted shallow, states that he did not lose five per cent. This spring I grafted four Isabella, stocks $\frac{3}{4}$ inches through, with Martha, and not being able to find a smooth place below ground, I cut off the stock even with the ground, and set in the grafts in the usual way. Then I threw a few handfuls of loose ground on the graft, so as to cover it. This was my first attempt at grafting, but all four started, and three are growing finely.

Very respectfully yours,

C. E. SOEST,
Of Soest & Bros.

CHAMPAIGN, Ill., Sept. 5, 1870.

GEO. HUSMANN, Esq., *Editor Grape Culturist, St. Louis, Mo.*:

Grapes have done wonderfully well here this year. No blight, no rot, no mildew; few if any insects, except in narrow districts, and the crop is at least three weeks earlier than usual. There are grapes, and grapes of the finest, and to be had at the fine price (to the consumer) of five cents a pound.

You say the Clinton is a failure in Missouri, and a correspondent from Texas says the same thing of the Concord there; and he says, too, the Clinton dried up. Here the Clinton has done well—very well, indeed, everywhere; and where it has had liberty, light, air, and sunlight, it has done magnificently indeed. To be sure, in some few places one may see that the gall insect has done damage—a damage, so far as I have seen, confined to that grape alone.

I was down to the great orchardist's "Rural," the other day, where I saw about 500 Concord trained on Dr.

Hull's "double and twisted" system, which on this, the fourth year from setting, were estimated to carry fifteen pounds to the vine. Whether this is a large yield or a small one I do not know, but in the way of grapes it was the noblest sight I ever was witness to. No blight, no mildew, no unripe or decayed grapes—nothing but health, and strength, and vigor. Every bunch purple with bloom, every one perfect, but none very large or very small. "Rural" told me the vines had not been touched in the way of pinching or pruning this season. I am anxious to see how long they will submit to Dr. Hull's system, and whether vines so healthy and vigorous will consent to be tied to stakes two or three years longer. "Rural" has not a great variety of grapes, but they all looked well as to foliage, and all promising as to fruit, but Taylor's Bullett, on which the bunches were of all sizes, and the berries in all stages of growth, ripen and decay.

It is worth noting, that just the year when the pear and apple appear to be going down before the attacks of insects and the blight, the peach and the grape seem to take a new lease of life, and lead us to think that they will suit themselves to our prairies as successfully as corn and the whole tribe of grains and grasses do.

Yours, truly, B. F. J.

[Fifteen pounds of grapes to the vine is a fair, but not a large yield. What would our friend Rural say to five acres of Concord, trained to trellis, in their fourth year also, which at least average thirty-five pounds per vine? He could easily see them here if he visited us—all large, perfect bunches,

well ripened, and no disease. They were all properly pinched in May and June. Grapes are fine everywhere, nearly, throughout the West, except the Clinton, which is a failure here, though it may do better with you.—ED.]

—
WASHINGTON, ARK., Sept. 4, 1870.

FRIEND HUSMANN:

Notwithstanding the terrible frost of last Easter our grape crop has not been an entire failure. There was a third of a crop of Concord and Catawba, about half a crop of Herbe-mont, and nearly a full crop of Norton's Virginia. As a general rule, the earlier grapes suffer most. We require for profit those varieties which put forth sluggishly in spring, and ripen late. Leaving out of view the Scuppernong (to which most of the grape-growers of our section specially incline,) my experience, so far, has indicated Norton's Virginia and Cynthiana as the best of the varieties yet known upon which to base our hopes of successful wine-making in our latitnde.

Usually our long summers, however, develop the highest qualities of many other varieties for eating. Martha has been eminently successful, never having yet rotted nor failed to ripen to a most luscious sweetness. Indeed, this will turn out, I fear, to be the only objection to the Martha. It is perhaps too sweet, and may come in time, after the novelty has worn off, to be less estimated than the more sprightly, but less cloying Maxatawney. The Delaware has fully sustained its original promise. It has kept its foliage well, and the fruit has

been free from disease. Goethe has not ripened well, never acquiring even a pink color; besides having suffered especially from euculio, and losing its leaves, more than I think wholesome. It must be borne in mind, however, that the season has been in every respect an exceptional, and very disastrous one. We have had no drought—little weather, indeed, that we could call dry even. It has rained incessantly since May, and our grapes went on to the last stage through constant deluges of showers. This was strikingly apparent in the must, which was so weak that gallizing became a necessity, if we are to have anything else than vinegar. I made wine of the Catawba and Norton's, but could not this year risk either without a liberal supply of sugar. I suppose the same thing would have been apparent in the Concords, but being in demand, from their size and appearance, I allowed them all to be sold for eating at 25 cents per pound. "The millions" are governed by appearances, and not over critical in taste. They go in for a big thing, and the Concord fills the bill.

I am this year thoroughly satisfied of two things which I had cause to suspect long ago. I have been all my life planting too close, and pruning too short. Our vines require the treatment of the south of Europe—barring the trees, which I cannot think good for a vineyard. Our canes will bear festooning along the tops of the trellises, and show healthier and finer fruit than if kept back to spurs on arms, or short canes, fan fashion, on the lower parts of the trellis. This results from our long seasons

and vigorous growth, and is especially the case with Norton's, Cynthiana, Herbemont, Concord, and other strong growing varieties. I think I will not plant any more of them less than sixteen feet apart, nor have trellises less than six feet high. This does not apply of course to weaker varieties, such as the Delaware—although it certainly does to the Catawba on fresh ground while the vines are young.

I have written this in the way of gossip, and to keep myself *en rapport* with the GRAPE CULTURIST, although I am not conscious that my observations this year can add much to the common stock. Calculating upon our usual summers, I think we must look for profit to the later varieties of grapes. Give ample room in planting and prune longer than we have been heretofore taught, and in view of this season we must make up our minds to abandon all prejudices against using sugar in our must, or be content occasionally to look to the vinegar market for returns, and (where shall I say?) for our wine to drink.

Respectfully,
Jno. R. EAKIN.

P. S.—I receive inquiries from many of your readers in this country regarding trellises. Please allow me to say to them all, that I have tried stakes very extensively, and every sort of trellis. With present prices of labor, even with wood at our doors,

a wire trellis, of No. 10 wire, ordered from St. Louis, and freight included, is cheapest and best. More is saved in posts and laths and nails than will pay for the wire. Our Scuppernong raisers, who require horizontal trellises, about ten feet above ground, are also adopting wires, as cheaper and more easily repaired. E.

[Thanks for your very interesting "gossip." Wish we had had some of your showers in due time. We agree with you about wider distances and longer pruning, but think ten to twelve feet of trellis room amply sufficient. We also agree with you about the value of Norton's and Cynthiana for wine, but you also want *white* wine, and for this you should grow Herbemont, Cunningham, Rulander, Louisiana, Goethe, Martha, Maxatawny, and above all, the Hermann. We can learn to blend these so as to make each supply deficiencies in the other. Think you will be better pleased with Goethe on closer acquaintance.

Your experience about trellis agrees exactly with ours. We have long advocated wire trellis as *cheapest* and *best*, but we use No. 12, which is amply strong enough, and will reach much farther.

Glad to see that your prejudice against gallizing is wearing off. It is the same story everywhere, and all rational wine-makers will yet come to adopt it.—ED.]

TEMPERANCE vs. TOTAL ABSTINENCE.

WALLA WALLA, W. T., Aug. 27, 1870,

DEAR HUSMANN:

I propose at this time to discuss our interests in and with the GRAPE CULTURIST. As one of the great family of grape growers, I look upon this publication as one peculiarly our own. Its sanctum is our fireside. Wherever it is real is our family circle. Its contents are our food. Its lessons are for our benefit, and with its patrons I feel that there is a bond of brotherhood, and its fair fame as sacred as my own. With these expressions of my feelings, I will now express my opinion in regard to what I deem its proper avocation, and what not. To meddle in politics, except where legislation affects our interests as grape growers, would of course not be permitted. To discuss the prospects of the wheat crop is out of its province. And so with all other subjects not connected with the one bare interest of grape culture. These rules you laid down as fundamental at the outset. Now I wish to ask, in all kindness: Has not your correspondent at Nauvoo, Ills., led you astray in his very *lengthy* articles on the "Coming Man," &c. I don't wish to discuss this question, for I deem the question of temperance to be one of those subjects, which are not connected with Grape Culture. And if I should admit (which I am willing to do) that we are acting a *part* in this great subject, I am far from connecting myself with the champions of drunkenness. As one of the family of Grape Culturists, I demur from the principles of your correspondent, Dr. Ampelos.

I cannot consent to stigmatize that great and intelligent class of reformers who have organized under various names against intemperance, as jackasses. (See GRAPE CULTURIST, page 213, second column.) I claim that we are *also* doing a good work, and are with them, not against them, and Dr. Ampelos mistakes the mission of wine in the world, if he places it as one of the beverages, causing what we will all admit to be the greatest evil, intemperance. I claim that the Dr. in his attacks upon temperance organizations arraigns "us" as the champions of intemperance. I deny the position, and will here assert, that, if I thought that the raising of grapes and the making of wine would result in the making of one more drunkard in the human family, I would at once destroy what little start I had made in the business. I may be mistaken in regard to the influence of pure wine, in the matter of drunkenness, but God forbid that I should ever do aught that would assist in leading one of my race to a drunkard's grave.

I say God bless those noble bands of brothers, who are endeavoring to save a fellow man from the miseries of intemperance, and if wine *is* one of the auxiliaries of intemperance, I hope they will succeed in banishing its manufacture and sale from the land. But on the other hand believing it to be a saving beverage, a drink that is designed to prevent drunkenness, I say good speed the time when the whole human family can drink pure, unadulterated wine — to the exclusion of those

poisonous liquors that destroy both soul and body.

When such is the case, I believe intemperance will be principally driven from the land. I am for temperance, and I hope that none of our brotherhood will ever show such an animus against temperance men. I want none of it in *mine*. I can not stand up in the light of the present civilization, and throw dirt at temperance reformers. Let us have an expression as to yourself.

Yours, respectfully.

A. B. ROBERTS.

[We think friend Roberts mistakes the views of Dr. Ampelos, and think the present number will show him that the doctor is also a *temperance* man in the *true* sense of the word.

As to our own views we trust they need no lengthy dissertation, or explication. We have advocated grape growing and the *moderate* use of wine for fifteen years, chiefly because we thought it the best agent of *true* temperance, and thought it would in time banish drunkenness from the land, a vice which we abhor and detest as much as any man living. But while we are for *true temperance*, in the proper sense of the word, we confess that we have no sympathy with those fanatical and bigoted advocates of *total abstinence*, who, because some men make beasts of themselves, and indulge in intoxicating liquors to excess, would fetter and enslave every one to abstain from their use altogether, and even go so far as to proscribe wine, the most innocent and exhilarating of them all. If they would confine their labors to the conversion of actual drunkards, if they preached *temperance*, instead of *total abstinence*, we would

also say, God speed them! But instead of this, we have but too often seen, that these apostles of temperance, as *they* called themselves, would drink the strongest liquors in secret, and would themselves daily violate the pledge they exhorted others to take. We will in charity suppose that there are a few, nay even many of them, who are mistaken but sincere believers in their doctrines; we will also grant, there are others who because their beastly appetite is stronger than their better conviction, would do well to take the pledge of total abstinence, *provided they would keep it*. But if the moral obligations of society—if his family ties, which should be holy to every man worthy of the name—will not keep the drunkard from debasing himself, will the pledge do it? Or will he not, after a few days or hours of abstinence, yield to the tempter again, and perjure himself also? And must others, who use wine and other liquors in moderation, as they should be used, be compelled also to abstain from them because a few will abuse them?

Such a doctrine is not only ridiculous and absurd in the extreme, but contrary to every republican principle, unworthy to be entertained in a country which calls itself the freest upon earth, and the refuge of all the oppressed and persecuted. We think it worthy of the best attention of our legislators, not to pass prohibitive laws against the use of intoxicating liquors—for this would be against the letter and spirit of our institutions—but to make drunkenness a crime, punishable like every other vice, by the severest penalties. For is not he who steals the sustenance and peace of his family

a greater malefactor than the thief who picks the pockets of strangers? Why is he not held amenable to the law, and punished as he deserves? Let drunkenness be made, before the law, what it really is—a crime. Let it be punished as such, and we will see less of it. But let not the innocent suffer with the

guilty; let us not trample our liberties under foot because vice has transformed the blessing into a curse.

These are our views. We think that our correspondents both entertain the same ideas, and have only misunderstood each other.—EDITOR.

THE FAIR AT HERMANN, ON THE 13TH AND 14TH OF SEPT.

Although overburdened with work, we attended this exhibition, and can truly say of it that we never saw a finer exhibition of grapes any where, both in variety of the collections exhibited, and in the excellence of single specimens. We give below a list of the premiums given to grapes:

Best collection of grapes (60 varieties), first premium Bluffton Wine Co. ; second, Aug. Loehnig.

Best six bunches of one variety.

Best six bunches Catawba, 1st premium Mrs. Theodore Poeschel ; 2d, John Mueller.

Best six bunches Concord, 1st premium Poeschel & Scherer ; 2d, Bluffton Wine Co.

Best six bunches Nortons', 1st premium Mrs. Theodore Poeschel ; 2d, John G. Mueller.

Best six bunches Herbemont, 1st premium Mrs. Theodore Poeschel ; 2d, Poeschel & Scherer.

Best six bunches Cynthiana, 1st premium Michael Romeiser ; 2d, Chas. Roemer.

Best six bunches Martha, 1st premium F. Langendoerfer ; 2d, Jacob Kuhn.

Best six bunches Goethe, 1st premium Jacob Kuhn.

Best six bunches Perkins, 1st premium Henry Henge.

Best six bunches Ives, 1st premium Henry Henge.

Best six bunches Delaware, 1st premium Henry Henge ; 2d, Poeschel & Scherer.

Best six bunches Maxatawney, 1st premium Charles Roemer ; 2d, F. Langendoerfer.

Best six bunches Rulander, 1st premium Poeschel & Scherer ; 2d, J. G. Mueller.

Best six bunches Taylor, 1st premium Aug. Loehnig ; 2d, John Mueller.

Best six bunches Hermann, 1st premium F. Langendoerfer.

Best six bunches Cunningham, 1st premium Aug. Loehnig ; 2d, Charles Beckmann.

Best six bunches Minor's Seedling, 1st premium H. Henge : 2d, Poeschel & Scherer.

Best six bunches Clinton, 1st premium H. Henge.

BEST BEARING CANE, ONE VARIETY.

Catawba, 1st premium H. Henge ; 2d, B. Petrus.

Concord, 1st premium J. Rommoll ; 2d, Poeschel & Scherer.

Norton's, 1st premium C. Eberle; 2d, John Fleish.

Herbemont, 1st premium B. Petrus; 2d, H. Henge.

Cynthiana, 1st premium Louis Poeschel; 2d, H. Henge.

Hermann, 1st premium August Loehnig; 2d, F. Langendoerfer.

Ives, 1st premium August Loehnig.

Martha, 1st prem. F. Langendoerfer.

Rulander, 1st premium Poeschel & Scherer.

Minor's Seedling, 1st premium Henry Henge.

Cunningham, 1st premium Henry Henge.

Delaware, 1st premium Henry Henge; 2d, Poeschel & Scherer.

Taylor, 1st premium Jacob Rommoll; 2d, John Fleish.

Mammoth Catawba, 1st premium Henry Henge.

RED WINES.

Concord, best two bottles, 1st premium Jacob Doneier; 2d, Poeschel & Scherer; 3d, Aug. Loehnig.

Clinton, best two bottles, Diploma Poeschel & Scherer.

Ives, best two bottles, 1st premium Poeschel & Scherer.

Hermann, best two bottles, Diploma, F. Langendoerfer.

Cynthiana, best two bottles, 1st premium Poeschel & Scherer; 2d, Dr. J. Feldmann.

Favorite, Diploma, Poeschel & Scherer.

Norton's Virginia, 1st premium John Mueller; 2d, John Hoersch; 3d, F. Langendoerfer.

WHITE WINES.

White Concord, best two bottles, 1st

premium Poeschel & Scherer; 2d, Mrs. Theodore Poeschel.

Catawba, best two bottles, 1st premium Mrs. Theodore Poeschel; 2d, John Mueller; 3d, Poeschel & Scherer; 4th, J. G. Mueller.

Iona, best two bottles, Diploma, Poeschel & Scherer.

Perkins, best two bottles, Diploma, Henry Henge.

Herbemont, best two bottles, 1st premium Poeschel & Scherer; 2d, B. Petrus.

Delaware, best two bottles, 1st premium Poeschel & Scherer; 2d, Mrs. Theodore Poeschel; 3d, J. G. Mueller.

Taylor, best two bottles, 1st premium Poeschel & Scherer; 2d, B. Petrus.

Rulander, best two bottles, 1st premium Poeschel & Scherer.

We had the pleasure of serving on the committee on white wines, a rather arduous task. Among the wines deserving particular notice in this class, were the Iona and Rulander of Messrs. Poeschel and Scherer, and the Catawba of Mrs. Theodore Poeschel. The Rulander and Catawba were as good as we have ever tasted them, and we doubt whether they could be excelled in their class. The Iona, a novelty to us, was an exceedingly smooth, rather sweet wine, of great body, and certainly just the thing for the lunch of a dainty lady. But we doubt whether it represented the true character of the grape. Of the other white wines we can only say of the three Catawbas which also received premiums, that they were equal to former seasons. We think the balance of the white wines did not come up to former exhibitions; this is easily explained by the inferiority of the

vintage of 1869, from which first quality wines could hardly be expected.

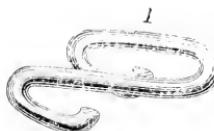
We did not get a fair taste of all the red wines, but some of them which we tasted were very fine, others below medium. Among the novelties in grapes we noticed exceedingly fine Marthas, by F. Langendoerfer; Hermann bunches by same, weighing nearly a pound, and a new seedling by H. Henge, which he calls Mammoth Catawba; it is a very

heavy, compact bunch, somewhat lighter color than Catawba, and of very good quality. We shall watch it closely, although we do "not like the source from whence it comes."

Twitchell's Acidometer was there tested before a special committee, which unanimously awarded it a premium as the best and most reliable acidometer they had yet seen.

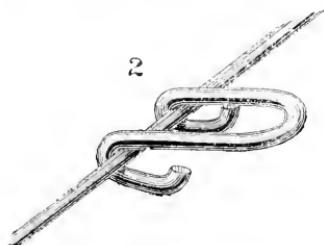
THE GRAPE VINE LOCK.

Mr. Edward F. Underhill, of Brockton, N. Y., has invented and patented a very simple device for tying vines, under the above name, which we think will serve the purpose of a cheap and durable tie—can be left on the wire and used for several years. It is made of No. 15 wire, and we think even smaller size would answer. The accompanying cuts will fully explain it, and if they can be manufactured for sixty cents per 1,000, as Mr. Underhill claims, we think they will soon come into general use.



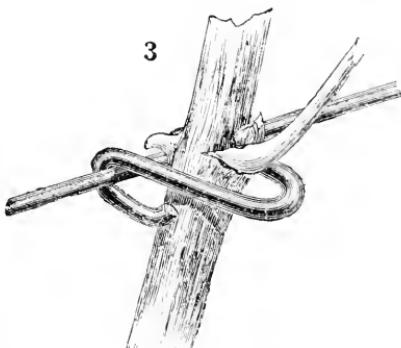
No. 1 represents the Vine Lock designed for upright or oblique shoots or canes.

No. 2 represents it as applied to the

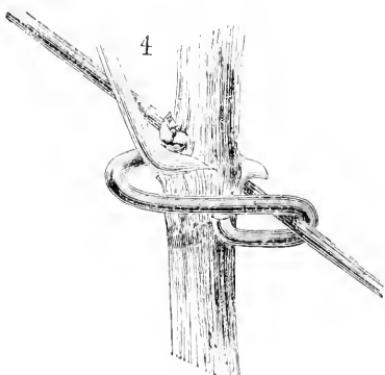


wire, with one hook closed that it may remain permanently on the trellis.

Nos. 3 and 4 represent it with the



shoot or cane inclosed and secured to the wire.



Where vines are trained to stakes, wooden trellis, or on the sides of buildings, a nail or staple is used as a substitute for the trellis wire. Where a nail is employed, the closed hook is placed towards the head of the nail.

For securing horizontal shoots or canes, the device has a different form.

The inventor claims for the use of the Vine Lock the following advantages:

1. Three acres of vines can be secured to the trellis in the time required for tying one acre.

2. Labor less skilled than is required for tying can, by its use, do the work as efficiently.

3. In cold weather the work can be performed with more comfort, as the hands may be protected with gloves.

4. By it the vine is securely fastened to the wire; whereas ties are insecure, and during high winds frequently break and let the vine fall.

5. It is made of sufficient dimensions

to avoid the liability of the vine being girdled.

6. When once placed upon the trellis, it will remain for use for many years; whereas ties must be replaced each season.

7. It is cheaper than any material now used for tying. Whether twine, bass bark, willow, rye straw, corn husks or rope yarn be employed, either will cost in money and labor from ten to twenty-five cents for each thousand ties, and they will last but a single season. The price of the Vine Lock will not exceed sixty cents a thousand, and they will last for many years.

8. The increased rapidity with which the work of securing the vines can proceed by the use of the device is so great, that three days less of labor will be needed during the season on each acre of vineyard; and at the present prices of labor, its adoption will result in a saving of from three to five dollars annually on each acre of land planted with vines.

SLAUGHTERING THE VINES.

"We have noticed with much interest the change coming over the minds of our grape growers in regard to the operation generally known as "summer pruning."

It is an opinion held by many close observers, founded upon facts that can be tested by any one, that leaf growth is essential to plant development; that in proportion as the leaves are impaired in their action, disease in the plant is induced.

The Hon. W. J. Flagg, in a paper on the "Sulphur Remedy," read before the Ohio Horticultural Society, says in describing the condition of his vineyard, weakened by the mildew: "Something must be done to restore the vigor

of the vines. For this purpose, I devise the following plan, which I have since carried out." * * * * *

"Sixth—No summer pruning." Showing that he regarded summer pruning an exhausting, wasting, disease-inducing process.

We visited a vineyard of strong Concord vines bearing a crop of a ton to a ton and a half per acre. The vines were very rampant, and the laterals and main shoots had had it much their own way till the fruit was nearly coloring, when it was found that the space between the rows of trellis was quite matted up and entangled, so that passage was impossible. Large knives were then taken, the spaces were

trimmed out, and about *half a ton of leaves and young shoots cut off*, and this was denominated *summer pruning*. What wonder that the functions of the plant become disturbed, and a diseased condition induced.

In the young vineyard of a gentleman of considerable order and taste, the two-year old vines had not been regularly tied up. In the beginning of August time was taken to touch up the vineyard. The leading shoots were tied up to the stakes quite trim and neat, but two thirds of the leaves and young growth was lopped off, and still the vines were held up as models of neatness. Is it any marvel that the Concord is exhibiting indications of disease?

It seems so hard to get men to fully comprehend what is meant by pruning at all, and what is meant by summer pruning in particular. In mistaken ideas upon this point there is much danger, and care must be taken to discriminate between that timely control and direction of the young growth that is, perhaps, mistakenly called summer pruning, and that merciless destruction of the most active workers in the economy of the vine, of which we have given illustrations.

Just think of a vine engaged in perfecting a ton of grapes, and we must conceive of a vast drain on its resources; then, while in the act of completing the task, a half ton of the organs that elaborate the material composing the fruit is at once removed—and we can not fail to comprehend that a great and most unnatural disturbance must be the result.

In the case of young vines, as with young animals, they require all the aid possible to ensure their full development. Do not let them run wild the large portion of the season, and then destroy their limbs to bring them into order at the end. The vine, as everything else, must be attended at the right time and in the proper manner, or punishment will most surely follow transgression. Of the two

evils—absurd, ill-considered pruning, and no pruning at all—we take the last as the least."

PRUNING THE GRAPE VINE.

"From this time forward to frost the thumb pruning of the grape vine should be abandoned. All the surplus wood now made will be removed at the annual knife pruning in February or March. It is a theory, in many places practically illustrated, that we prune our native vines too much. In several instances, gentlemen have written us that they are experimenting with the Concord, Delaware and Clinton, in letting the vine make all the growth it will, giving all the room needed, and not pruning at all. There are those who believe that by this method entire health will be secured; a long and varied series of experiments alone can determine."

[We clip the above articles, relating to the same subject, from Colman's *Rural World*. We endorse, upon the whole, the idea given therein. Our readers know that no one can be more averse to the slaughtering process than we are. But if the writer in conclusion says, "Of the two evils, absurd, ill-considered pruning, or no pruning at all, we take the last as the least," we are like the Irishman, and "take neither of them." If the grape-grower is not able to work at the *proper time*, and in the *proper manner*, our advice to him would be, *quit at once; do not grow grapes*, for you do not deserve to have them in perfection. We follow the old maxim, "What is worth doing at all, is worth doing right."

And we consider it absurd to speak of discontinuing "from this time (20th of Aug.) to frost" the thumb pruning of vines. Had the writer said "from 1st of July on," he would have been nearer right. No thinking grape-grower would or could thumb-prune his vines in August.—EDITOR.]

EDITOR'S LETTER BOX.

OSSAWATTAMIE, Miami Co., Kans., ?
August 15, 1870.

FRIEND HUSMANN:

Enclosed I send you a leaf of a grape vine that has been sold here for Norton's Virginia. The fruit resembles the Clinton, but is larger and very black, and fully colored at this time. We are at a loss what to call it. The flavor is like the Clinton. Thin skin with a large amount of coloring matter. Please give us your opinion of it.

Very respectfully,

A. GOVE, P. M.

[The leaf was much shriveled, and hard to identify. We are inclined to believe it the Franklin, from your description.—ED.]

BRIDGEPORT, August 15, 1870.

MR. GEORGE HUSMANN:

A few words how grapes are doing here with me: Hartford Prolific and Ives grapes were pretty well colored the first of this month here, and are now getting pretty good. They are a little earlier than usual, I think, owing to a dry spell of weather at that time; but now it is plenty wet here. Concords are doing well; Norton's Virginia are doing well. I left some of the vines tied to the trellis last winter, and they were not frozen any in the least. I have a few vines of Herbemont and Cunningham. They are doing well. I left one vine of Herbemont tied to the trellis last winter. It did not freeze any, but I had pruned the unripe wood off.

There is no rot in any of my grapes. The soil of vineyard is slate, mixed with sand and some small sand stones.

Have about one acre planted, and only part of it bearing its first crop.

Mr. Husmann, in your Book on Grapes and Wine, page 169, in regard to making gallized wine, I can not fully understand it. There you do not say whether you dissolve the sugar in the water before you put it on the husks, or whether you dissolve the sugar in the water after it is pressed from the husks. You claim that the must should be weighed with the saccharometer before fermentation sets in. I would think that this is right. But if the water is put on the husks, and left to ferment for a time, it would then appear that fermentation being so strong the saccharometer could not give the correct weight of it, and therefore by putting in the sugar after being pressed, to bring it up to the normal, still might not be exactly right on account of the fermentation being somewhat in the way. But again, on the other hand, to put in the sugar to the water, and then afterwards put it on the husks, I would think would be entirely wrong, as I think there would be a considerable amount of sugar left in the husks, and as this sugar is a different kind of sugar from that contained in the grape.

You will please write me a few lines and let me know how you manage to get at the right strength of the gallized must. I suppose by what I can understand, you say it takes about two pounds of sugar to bring it up to 80 degrees. I suppose you come at it in this way: that you put

into every gallon pressed for gallized wine two pounds of sugar.

Respectfully yours,
HENRY ETTER.

[We do not see how you can be in doubt as to the proper way of adding water and sugar. Dissolve your sugar in the water, two pounds to the gallon of water, weighing your must before hand to see whether it has the necessary specific gravity; then ferment the whole together. You are mistaken in regard to the sugar—fermentation with the grape juice and husks changes cane sugar into grape sugar and all into alcohol.—EDITOR.]

PITTSBURG, Texas, June 20, 1870.

MR. HUSMANN, *St. Louis*:

Dear Sir—I have quite a number of vines growing this year of the Concord and Clinton varieties, some of which have fruited. I am much pleased with my success thus far, though I am somewhat perplexed as to the most judicious course to pursue with the Clinton vine. It is such a rampant and straggling grower that I greatly fear I shan't be able to keep it pruned in proper shape, or within proper bounds, so as not to destroy its productiveness; therefore suffer me to ask a few questions relative thereto. You recommend poorer soil. I have a small pebbly plat of ground, not as fertile as where they are now growing—that I think of transferring them to, if practicable. What think you of it? and what distance would you plant them? Would you prune and train them as the Concord? How would the horizontal arm system suit this variety? If not presuming too much, please answer through the columns of the "GRAPE CULTURIST."

I hope you will have much success in your journal undertaking—that your subscription list may soon double the present, and that no cause may ever arise to prevent its publication. I am much pleased with it, and would not be without it for double the price.

I have gathered some of the finest grapes this summer from the woods that I have ever seen—equaling in size the largest of the cultivated varieties. They commence to ripen about the same time of the Concord. If you would like to test the virtues of some of this wild growth, I will send you by mail a few cuttings this winter for your experimental garden, if you will advise how they should be packed.

Yours, very respectfully,

J. DOZIER BASS.

[The best plan of training the Clinton is to prune long, leave the old wood, and prune to spurs on the young growth. We would not advise removing, hardly think the variety is worth it. We think but very little of the grape or vine; it may, however, do better with you. If you will leave three to four arms to every vine, horizontal arm training may do well enough. Give them plenty of room, at least ten feet in the row.

We would like to try a few of the best of your wild varieties, if you will send them. Wrap in moss and oiled silk, and send by mail.—ED.]

—
CINCINNATI, August 29, 1870.

FRIEND HUSMANN:

I have three acres of Dianas in full bearing, with a heavy yield. Last year I made the wine *pure juice*, but it has such a musty flavor—aroma—that I can't sell it. It has a *feline* taste,

and they call it *cat* wine. I had thought of selling the grapes this year, but the price is down too low. Cannot this strong flavor be reduced by sugar and water? Tell me the proportions you use. Cannot Agawam, Rogers, Clinton, and other high flavored grapes be treated in the same way? Will the same treatment improve Taylor's Bullitt? How long should they stand on the skins with the sugar and water? My grapes are getting ripe—things are *pushing*—shall have to commence the vintage in a few days. I know you are busy, but a few lines in reply will greatly oblige

Yours, truly,

E. A. THOMPSON.

[We did not expect, after the spicy controversy we have had with you on the subject of gallizing, that you would ever ask advice from *us* about "that vile adulteration which was ruining the reputation of our native wines," and other like expressions. But truth and reason are mightier than prejudice, and will prevail, and we are glad to welcome you among the converts. Better late than never, and we will give you as good advice as we can.

The Diana has a very strong *feline* flavor, and the pure juice will certainly not make a pleasant wine. You should have gathered them early, when not too ripe, and to every gallon of must add a gallon of water, bringing it up to 80° by Oechsle's scale, with the addition of sugar. The whole mixture should show 80°, and if the must does not come up to it, sugar must be added to it. You can ferment on the husks for four or five days, and then press. The same rule will apply to other strong flavored grapes.

The stronger the peculiar aroma, the less ripe the grapes should be allowed to become, and the more water and sugar used.

Try and experiment, you will soon find the proper proportions, and do not forget to report results to GRAPE CULTURIST.—ED.]

TOLONO, Ill., August 25, 1870.

MR. GEO. HUSMANN, Bluffton:

Dear Sir—I send you by express, pre-paid, some grapes for you to identify, if they arrive in condition for doing so. You can see from them how much I have been swindled. You can report in GRAPE CULTURIST or by letter, as you think best.

No. 1 is what I have for Wilder's. No. 2 for Merrimac. No. 3 for Cassady. No. 4 for Perkins'. No. 5 for Black Hawk. No. 6 for Rulander. No. 7 for Concord Seedling. No. 8 for Concord Seedling.

If No. 3 is Cassady I don't like it. Its leaves are tender and fruit not very good. No. 5 is worst of all. I know it is no Black Hawk; it is the poorest I ever raised. The Concord Seedlings are hardy, healthy, good growers (with me), not showing any signs of disease in the six years I have had them. If you think either of them worth testing, you can have one of each. I am not increasing them.

Yours, truly, JOHN BAKER.

[No. 1 is Wilder; No. 2 is Merrimac; No. 3 is not Cassady—we are unable to identify it, seems to us worthless; No. 4 is Perkins; No. 5 we think Blood's Black; No. 6 we think Clinton. We hardly think the Concord Seedlings are good enough to warrant propagation.—ED.]

LIBERTY, BEDFORD COUNTY, VA., }
Sept. 9, 1870. }

MR. GEORGE HUSMANN,

Dear Sir :—My vineyard, composed mostly of Catawbas, is infested by a small insect which has in many instances completely denuded the vine of its leaves—the leaves and vines having the appearance of a heavy frost having fallen upon them. The fruit (of which there is a fair crop, notwithstanding the rot from the early rains), seems as yet uninjured by this destruction of the leaf, and is ripening very evenly. The Concord vines are not so much injured as either the Catawba or Isabella. I observe that all the vines in this section, of every cultivated variety, are more or less attacked by this voracious little leaf sucker.

The insect when first seen appears upon the under side of the leaf and bears some resemblance to a louse; is of a pale green color, and very torpid in its movements; in a very short time, however, it becomes very active,

flies, and jumps from leaf to leaf upon the approach of any one, and is very shy; is still of a pale green color, and when full grown is between a gnat and mosquito in size. I have never seen any reference to this predicator in your journal or any other work on the subject. Can you give me information and a remedy?

I tried an application of a solution of carbolic acid with no good result, and being ignorant of the peculiarities of my enemy determined to let him have his own way for the present.

Respectfully,
T. M. BOWYER.

[We think it is the thrips or leaf-hopper you have to deal with. Some have tried sulphur as a remedy; others recommend to go through the vineyard at night with torches, one person bearing the lighted torch, another beating the vines when they will fly into the light and get scorched. Whether these remedies are reliable or not we are unable to say.—EDITOR.]

WE acknowledge the receipt of manifold invitations to fairs and horticultural gatherings, so numerous, indeed, that we cannot name them all, and only regret that it is out of our power to attend them. We can assure our friends that it is not for want of inclination; we have always found pleasure as well as instruction in these gatherings of the lovers of horticulture, and would like to visit them all, but we have a task before us here

which sometimes is almost beyond our strength, and as these fairs and the vintage always come together, we can only choose between duty and pleasure, and our choice is the first. Thanks, nevertheless, to all our friends for their kind remembrance. We hope they will all have a good time, and send us a report of what they have seen and learned, for the columns of the *GRAPE CULTURIST*.

Cash Advertising Terms for 1870.

TWENTY CENTS PER LINE, AGATE TYPE, EACH INSERTION.

Cover Pages Twenty-Five Cents per Line.

BUSINESS CARDS, FIVE TO SIX LINES EACH, \$15 PER ANNUM.

TWO NEW GRAPES.

The Croton and Senasqua.

THE Croton is a white grape and is acknowledged by all who have tasted it to surpass, in quality and beauty, any white grape yet introduced that will succeed in the open air, and it is in delicacy of flesh and flavor fully equal to the finest foreign varieties. The vines have always ripened a large crop of splendid fruit since their first season of fruiting, although the Isabella and Delaware vines growing near, under equally favorable circumstances, have occasionally failed to do so.

The Senasqua is a black grape—the vine a healthy, vigorous grower, with every appearance of a pure native, but its fruit more closely resembles the fleshy foreign grapes than any variety that has as yet been introduced, it is considered by some of our best pomologists as the finest hardy grape they have tasted.

For further description, history of origin, reports of success in various localities, list of premiums awarded, etc., etc., send for circular.

PRICE LIST:

	each.	doz.
Croton, extra 2 year.....	\$5 00.....	\$48 00.....
" " 1 year.....	\$3 00.....	\$30 00.....
Senasqua, extra 2 year.....	\$3 00.....	\$30 00.....

All the above are first-class plants.

STEPHEN W. UNDERHILL,

Croton Landing P. O.,
Croton Point, N. Y.

oct70-1t

Tilton's Journal of Horticulture AND FLORAL MAGAZINE.

An Illustrated Monthly Magazine devoted to the culture of Fruits, Flowers, and Vegetables. Illustrations of

NEW THINGS IN HORTICULTURE

Will be given in each number.

Subscription Price \$1.50 per annum. Ten Copies \$1 each.

The remaining numbers of this year will be sent Free to Subscribers for 1871. Elegant Premiums given for making up Clubs. Among the contributors for the JOURNAL are

MARSHALL P. WILDER, MASS.

John A. Warder, Ohio.	Henry Ward Beecher, N. Y.	Charles M. Hovey, Mass.
Geo. W. Campbell, Ohio.	Ed. F. Underhill, N. Y.	Fearing Burr, Mass.
Francis Parkman, Mass.	George Such, N. J.	William Saunders, D. C.
Joseph Beck, Mass	W. G. Strong, Mass	S. Miller, Mo.
R. Manning, Mass	William C. Flagg, Illinois.	C. B. Denson, N. C.
Peter Henderson, N. Y.	James F. C. Hyde, Mass.	Wm Parry, N. J.
Charles Downing, N. Y.	Parker Earle, Illinois	

J. E. TILTON & CO., BOSTON,
Publishers.

A Sample Copy, Club and Premium List will be sent to any address upon receipt of 15 cents.

oct70-3t.

SMALL FRUITS A SPECIALTY.

STRAWBERRIES, BLACKBERRIES, Currants and GRAPE VINES
of all the leading varieties, at the LOWEST RATES.

Send for Price List.

Address

JOHN COOK,

(Nursery 2 miles from Baltimore, on old Frederick Road,
Carroll P. O., Baltimore Co., Maryland.

oct70-1t

1,000,000

GRAPE VINES FOR SALE,

Of all the Leading Varieties, true to name.

As I am *bound to sell*, will sell LOWER than any one else.

CONCORD VINES, good two-year old, only \$25 per 1,000.

Other varieties in proportion. Also, Currant, Gooseberry, Strawberry, Raspberry, Blackberry, Rhubarb, Roses, and other plants.

Apple Trees, one, two and three years, very cheap.

I will also take good Western Lands, at cash price, in trade.
Address, and send for Price List, and three new Essays on Grape Culture, to

Dr. H. SHRÖDER,

Bloomington, Ill.

Grape Vines! Grape Vines!

FALL OF 1870!

We offer our usually large and selected stock of all standard and new varieties, including

SALEM,	MERRIMACK,	IONA,	CYNTHIANA,
WILDER,	GOETHE,	HARTFORD,	MARTHA,
LINDLEY,	CONCORD,	DIANA,	EUMELAN,
AGAWAM,	DELAWARE,	HERBEMONT,	WALTER.

SALEM A SPECIALTY.

Our stock of plants will be unequaled, and quality of superior excellence. Salem, with us, is bearing a fine crop of fruit, and must soon become one of the leading varieties in cultivation. It fulfills all that has been claimed for it. For circulars, etc., address

I. H. BABCOCK & CO.,

Lockport, N. Y.

aug70-3m

HENRY TWITCHELL,

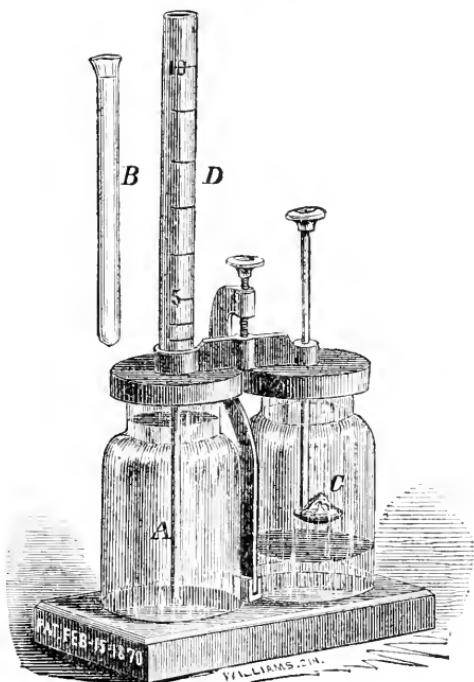
(Late of firm of JAMES FOSTER, Jr., & CO.,)

OPTICIAN,

MANUFACTURER OF

HYDROMETERS, THERMOMETERS and GAUGERS,
INSTRUMENTS, SACCHAROMETERS,

AND INVENTOR OF



ACIDOMETER.

TWITCHELL'S

Price of ACIDOMETER FOR MUST OR WINE.....	\$10 00
Price of SACCHAROMETER (SILVER).....	10 00
Price of OECHSLE'S MUST OR WINE SCALE.....	10 00

Price list of other instruments sent, on application to

HENRY TWITCHELL,

132 West Fourth Street,

CINCINNATI, OHIO.

sep70-3t

CHOICE VARIETIES OF
Grape Vines, Strawberry Plants, Raspberry, Blackberry & Gooseberry.

Also, a few Peach and Cherry Trees, the finest growths. Particular attention will be paid to small orders of plants to be sent by mail. For sale by

SAMUEL MILLER, Bluffton, Mo.

TOBIAS WEIGOLD, COOPER, 1618 Jackson Street, St. Louis, Missouri.

Offers his services to Wine Dealers, as manufacturer of all kinds of casks, fermenting vats and cellar apparatus. He guarantees satisfactory work and lowest prices. Refers to some of the principal wine dealers in the State of Missouri, for whom he has made casks and vats for a number of years, and especially to the Bluffton Wine Company, No. 22 South Main street, where casks and vats of his manufacture can be seen by those interested in the business.

feb'69-tf

GREAT WESTERN GUN WORKS, NO. 179 SMITHFIELD STREET, PITTSBURGH, PA.

Double-Shot Guns, \$9 to \$100. Single-Shot Guns, \$3 to \$20. Rifles, \$10 to \$50. Revolvers \$6 to \$20. Discount to Clubs. Send stamp for price catalogue.

 Army Guns and Revolvers bought or traded for.

June 9-3m

HAVE YOU GOT MARTHA?

GRAPE VINES AND SMALL FRUITS.

[Nursery Established in 1857.]

A splendid stock of Vines and Plants are offered the coming Fall and Spring, including nearly every variety known to be of value. The popular and white Grape

MARTHA, OR (WHITE CONCORD,)

In large or small quantities. Also, Arnold's new Hybrids, Eumelan, Walter, Weehawken, Christine, Hine, and all valuable numbers of Rogers' Hybrids: also, Delaware, Iona, Israella, Concord, Hartford, Ives, Norton's Virginia, etc., etc., in all about one hundred distinct varieties.

Kittatinny Blackberries and Clarke Raspberries in large quantities, Jucunda and Charles Downing Strawberries, Downing's Seedling Gooseberries, Cherry, Versailles, White Grape, and Black Naples Currants, etc., etc.

Send stamps for Illustrated Catalogue and Price Lists to

apr69-tf

GEO. W. CAMPBELL, Delaware, Ohio.

D'HEUREUSE AIR TREATMENT.

PATENTED AUG. 6th, 1867, AND AUG. 3d 1869.

FOR FERMENTATION and GERMINATION, and for PRESERVING, PURIFYING and IMPROVING of Organic Substances.

 Exceedingly useful in Malting, Brewing, Distilling, Baking, Manufacture of Wine, Cider, Fruit Wines, Fruit Brandies, Vinegar, etc.; in Sugar Works, Oil Works, Manufacture of Extracts, Preserves; in Storerooms, Transportation of Grain, Produce, Fruit; Purification of Water, etc., etc.

 Rights for States, Counties, Districts, or Establishments, for sale. Apply to

P. O. Box 6844.

R. D'HEUREUSE, New York.

WANTED

WANTED—An industrious energetic man experienced in grape growing, to take charge of a young vineyard situated one mile and a half from Little Rock, Arkansas. The location is a beautiful table land, on a bluff elevation of some three hundred feet, on north bank of Arkansas river, overlooking the city and railroad depots, convenient to both; and is, all things considered, the most desirable in the State for a large vineyard. A partnership with responsible party of some means preferred, but this not essential. Correspondence solicited. Address, J. W. MARTIN, Little Rock, Ark.

WANTED several active, enterprising salesmen, to sell wines and plants for the Bluffton Wine Company. Parties wishing to engage, should address,
WM. WESSELHOEFT,
Secretary Bluffton Wine Co., Bluffton, Mo.

WANTED—At the “Ouachita Vineyard,” near Hot Springs, Arkansas, a competent man, to take charge of vineyard, orchard, small fruits, and select market garden—an accomplished, sober, industrious man, one who can give satisfactory testimonials of integrity and worth. To a suitable person with family, who can furnish desirable help, an interest in the proceeds or wages will be given. I would prefer a married man whose family fully understand dairy operations, particularly the manufacture of butter and cheese. Hot Springs always affords a good market for all supplies.

sep70-21 GEORGE W. LAWRENCE, M.D., Resident Physician.

PUBLISHED AND FOR SALE

BY

CONRAD WITTER,
ST. LOUIS, MO.

MUENCH, FREDERICK, *School for American Grape Culture*. Brief but thorough guide to the laying out of vineyards, the treatment of vines and the production of wine in North America.

MUENCH, F., *Amerikanische Weinbauschule und Weinbereitungslehre, etc.*

Either one of these books will be mailed free of postage on receipt of one dollar.

HUSMANN, GEORGE, *The Cultivation of the Native Grape and Manufacture of American Wines.*

On the receipt of \$1.50 this book will be mailed to any address.

SCHMIDT, J. A., *The Diseases of Wine*, how to prevent and how to cure them, according to the doctrines of M. Pasteur.

This book will be sent, free of postage, on receipt of \$2.

C. WITTER keeps a large assortment of books treating on the Culture of Grapes and Manufacture of Wines.

Catalogues sent on application. Please address letters,

CONRAD WITTER,

122 S. E. corner Walnut and Second Sts., St. Louis, Mo.

Missouri Wines and Plants.

THE BLUFFTON WINE COMPANY

NOW offers to the trade, and to the public generally, its first crop of wines, grown at Bluffton, comprising, of red wines, Concord, Norton's Virginia, Ives, and Clinton; of white wines, Concord, Catawba, Hartford, Delaware, and Herbenmont.

Our wines are of excellent quality, and we are sure that they will give general satisfaction to consumers. Our motto is, "Low prices, good quality, and quick sales;" and Wholesale Dealers in wines will find it in their interest to apply to us. Price lists sent on application.

We also call the attention of Grape Growers to our large and complete stock of plants of all the leading varieties. We shall make it our aim, in our fall trade, to supply our customers with the best of plants, and at as low rates as any reliable firm.

Descriptive Catalogues sent, on application to

WM. WESSELHOFT, Secretary,

BLUFFTON, MO.

Bushberg Vineyards & Grape Nurseries.

GREAT REDUCTION IN THE PRICE OF

GRAPE VINES

AND SMALL FRUITS.

 **SEND FOR NEW PRICE LIST FOR FALL 1870.** 

Our ILLUSTRATED DESCRIPTIVE CATALOGUE—"More useful to the Grape Grower than some works of much greater pretensions."—Am. Agriculturist,—will be sent by Mail, post-paid, for only 25 cents, either in the German or English Edition, as you may order.

 Agents Wanted to canvass for orders for Fall delivery. Terms liberal, profits handsome. Posters, Price Lists, etc., gratis. Address,

ISIDOR BUSH & SON, Bushberg, Mo.

G R A P E W O O D

T W E N T Y K I N D S !

Immense Stock, especially of

Concord, Ives, Delaware, Hartford, Iona, Catawba, Isabella, Clinton, Rogers' Nos. 4, 15 and 19, etc.

Cut from Bearing Vines before hard freezing, and stored in frost-proof Cellars.

Very Low for Cash. Price List Gratis.

ALSO, LEADING VARIETIES OF GRAPE ROOT IN STORE.

Can ship South safely at any time.

M. H. LEWIS, Sandusky, Ohio.

THE

GRAPE CULTURIST.

VOL. II.

NOVEMBER, 1870.

No. 11.

NOVEMBER.

WORK FOR THE MONTH.

This will be a continuation of the work of last month; therefore we need not say much about it. Fall planting should be done in this month, about which full instructions have been given in former numbers. The rows for the planting should be slightly elevated, so that the water will not settle and freeze about the young plants during winter. Tender and half tender varieties, such as Herbemont, Cunningham, etc., etc., should be slightly covered with earth. And here let us say a few words about this great bugbear of so many grape-growers, winter protection, which often detains men who are willing to do any work during summer, to plant such varieties as Herbemont, etc., which is, in the proper soil and with winter protection, a sure crop every year. We can assure them that it is not half as laborious as they suppose. If pruned at the right time, the canes bent down along the trellis, and a few spadefuls of earth thrown on them to keep them in position, the principal part of the

covering can be done with the plow, and the whole labor to cover an acre and take it up again in spring, will not cost ten dollars. Is this an object, when a certain crop of such delicious grapes as the southern division of the Aestivalis family yields, can be gained by it every year? We have practiced it with the Herbemont and Cunningham for the last eight or nine years, and they never failed yet to reward us by a heavy crop. How much patient toil has been expended on the Catawba without success, to save it from mildew and rot during the summer, by the same men who begrudge this slight labor in the fall, when they have much more time at their disposal, and are sure of a rich reward for their labors.

Cuttings should be made in time, and the wood never be allowed to get in the least dry; but they should be packed away every day, if possible, tied in bundles, in dry, sandy soil, and covered with earth.

PRUNING THE VINE.

As most of this important operation should be performed this month, we will try to give a few general hints about it, which, we trust, will be of service to those of our readers who may be new beginners. We can hardly call them *rules*, for fixed rules can hardly be given for an operation which requires so much thought and close acquaintance with the growth and bearing habits of the different varieties. We will first try to tell you what you should *not* do, and then come to what we think may assist you in what you should do.

Do *not* go to work like an automaton, without forethought, nor employ any one who is not willing to think while he works. If you have closely observed your vines during the summer, the habit and growth of each variety, pruning will be plain enough to you. You will easily see what part and how much should be cut away. Any workman who is not willing to observe and think while he works, has no business in the vineyard.

You will have observed that some varieties will bear more readily and larger bunches upon the laterals of the young canes, some upon the spurs of a few eyes on old bearing branches, and some will fruit readily upon the principal canes. This should govern you in pruning. The Concord, Cunningham, Goethe, Hartford, Herbeumont, Ives, Louisiana, Maxatawney, Martha, Mary Ann, North Carolina Seedling, Perkins, Rulander, Telegraph and Wilder, will all fruit best on the laterals of the young canes of

last summer's growth, provided they are strong enough, which they will be if they have been pinched according to our directions in the article on summer pruning. They are all strong growers, the fruit buds at the base of the principal canes are seldom well developed, and will not bring much fruit. We therefore grow the fruit on the laterals, which can be shortened in to from two to six eyes each, according to their strength. All these rank growers should have plenty to do; that is, they should be pruned long, much longer than is generally done. Let us presume that your vine is four years old, therefore in its full-bearing vigor, has three principal canes, each with four laterals. If you prune these to the average number of four buds each, you will have forty-eight buds on all the laterals. These can produce double the number, or ninety-six bunches, which would of course be rather too much. But some of the buds will generally fail, some bunches will be imperfect, and you can easily reduce this number to about sixty at the first pinching, should more have appeared. We have made the observation repeatedly, that the Concord rotted most where pruned short, as the rank growth of wood and leaves would not allow the free circulation of air.

Another class we have which produces best on spurs on old bearing arms or canes. The Clinton, Cynthia, Golden Clinton, Hermann, Huntingdon, Norton's Virginia, and Taylor, belong to this class—strong growers also, and especially those belonging to

the *Cordifolia* class. They will also bear better on spurs on laterals than on main canes, but do not produce their best or handsomest fruit until they can be "spurred in" on old arms. For this purpose select for your spurs only strong, well ripened shoots, cut out all the small and imperfect ones, and cut those back two to three eyes each. You may leave the same number of buds, say from thirty to fifty, according to the strength of your vine, and always bear in mind that you can reduce the number of bunches when summer pruning.

A third class produces readily and abundantly from the main canes. These comprise the varieties which do not grow very strong—the *Alvey*, *Cassady*, *Creveling*, *Catawba*, *Delaware*, *Iona*, and *Rebecca*. They will produce best on short canes of say six to eight eyes, and the old renewal plan may be as good as any for them. From twelve to twenty-four buds are generally enough for a vine. The number must again vary with strength and age. There is much more dan-

ger of overtasking this class than both of the others, and they should never be allowed to bear too much.

Do not prune too close to the bud, as it is then apt to be injured by the cold. Leave from one and a half to two inches of wood above the eye. Old, dilapidated arms or stubs should be cut out clean and close, and if the wound is too large, it may be covered with grafting wax or shellac.

The rules, of course, will not apply in all cases, and may be modified according to circumstances. For instance, if you have no suitable young canes with laterals on vines of the first class, they will also bear well on healthy arms of old wood, as recommended for the second class, and *vice versa*. The intelligent vintner will soon learn how far they are applicable. Nor do we pretend to assert that there are not other methods equally well adapted—perhaps better—than ours. We should be glad to have this subject fully discussed in our columns, and hope our readers will give us their views freely about it.

EDITOR.

THE MANAGEMENT OF YOUNG WINES.

If left on the husks in the fermenting vats, these should be closed airtight as soon as fermentation has ceased. This can be done by nailing strips of cloth on the rim of the vat; then screw down the cover, and close the whole with tallow. If pressed and put in casks, they need not be completely filled until violent fermentation is over; then fill with wine kept for that purpose, up to the bung,

and when the wine has become perfectly quiet, drive the bung perfectly tight. In December the wine should be clear, and should then be racked off in clean casks, well fumigated with sulphur.

In racking wine, do not quite open the faucet, so that the wine, in running, will make a circle, and thus come into contact with the air. This, and frequent rackings, will do much

to hasten its ripening. We hope much in this respect from the air treatment of Mr. R. d'Heureuse.

It is a mistaken and long exploded prejudice that the "lees are the mother of the wine," and that, consequently, the wine should remain on them until spring. The lees are the excrements or impurities contained in the wine, which settle at the bottom during fermentation and immediately following it. How wine can, then, be benefited by remaining on these impurities we can not see, and we think we have all

the authorities on our side. The more complete this purifying process, the riper and better, consequently purer and healthier, must be the wine. Any remnant of the ferment or lees still suspended in the wine must, necessarily, be disagreeable to the taste, and injurious to the system. We would therefore advise frequent rackings as one of the best means to ripen and purify the wine.

We shall return to this subject again in a future number.

EDITOR.

DR. WYLIE'S HYBRID GRAPES.

"Since the publication in *The Rural Carolinian* for September of Mr. Ravenel's letter and our appended remarks on some of Dr. Wylie's grapes, we have received from him specimens of many others: and, much as we were pleased with those sent us by Mr. Ravenel, we were not fully prepared for the pleasure reserved for us. We confess to being astonished, as well as delighted, in view of the results obtained: and cannot find words to adequately express our appreciation of the value of Dr. Wylie's labors.

To describe properly all of Dr. Wylie's hybrids that we have had the pleasure of tasting, nearly twenty-five in number, would require more time and space than we have now at command; besides, we are not qualified to do it. In tasting and comparing so many varieties, we found ourselves losing the power of nice discrimination, and therefore confined ourselves, in our critical examination, to a few.

Of these, and others which may be equally good, we hope in future numbers to present full accounts, from the pen of Dr. Wylie himself, with illustrations from nature of some of them.

Of Janie Wylie (Clynton Hybrid, No. 1), we have already spoken. The specimens since received more than confirm our high opinion of it, and we agree with Mr. Ravenel in placing it at the head of the list, and take pleasure in endorsing the name he has given it. In point of flavor, merely, it is not the best, though excellent; but, considering its size, beauty, productiveness and freedom from disease, it is unequalled by any grape with which we are acquainted.

We are not prepared to say which should come next in order, considered as a grape for general cultivation, but will name Halifax Hybrid, No. 55, (F. Halifax, M. Delaware). This is truly a magnificent grape. Bunches, medium, long, shouldered; berries, medium or

large; color, dark purple, approaching to black, with a purple bloom; skin, firm; flesh, tender, juicy, sweet, sprightly; quality, best. Some gentlemen who tasted it pronounced it the best grape in the collection.

Halifax Hybrid, No. 38 (F. Halifax, M. Delaware), is another grape of great beauty and promise. It is of a dark red color, with a purple bloom; but, having mislaid the notes we made on it, we cannot describe it in detail. It is one of the most promising of all for general cultivation, being perfectly hardy, free from disease, and apparently suited to all kinds of soil where any grape will grow. Its foliage is that of the *Labrusca* type.

Halifax Hybrid, No. 30 (F. Halifax, M. Delaware), a black grape of a fine delicate flavor; and Halifax Hybrid, No. 49 (F. Halifax, M. Delaware), also

a black berry of high vinous flavor, are both grapes of great promise, of which we shall publish detailed descriptions in future numbers."

[We clip the above from that valuable monthly, *The Rural Carolinian*, and hope to hear more of these very interesting seedlings from Dr. Wylie himself, and may present our readers with some illustrations of them. There is room for improvement still, and we welcome with delight every new seedling of superior merit over any of the older varieties, may it come from the south or north; although we warn our readers not to be too hasty in planting any new and untried variety on a large scale. There is no reason for adding to our already large list of varieties, unless we can add something really better, in some respect, to the varieties we already have.—EDITOR.]

THE COMING MAN WILL DRINK WINE; OR, COMMON SENSE
vs. PROHIBITIVE LAWS.—VI.

My theme might further be illustrated with that crying evil and shame of civilized society, the prostitution of great cities; a shame and an evil of so vast a magnitude, involving in itself so much of misery and degradation for women, so much of heartlessness, coarse-mindedness, and cruelty in men, and permeating society at large with such a mass of hypocrisy, that but for faith in freedom and progress, it might be doubted whether oriental or mormon polygamy, or savagery itself, were not a preferable state to that where a large portion of society seems offered up as victims to

the rest. In fact, it must appear evident that an endless comparison might be made of the necessary use of all things, and the unnecessary abuse that prevails amongst some; but let what I have said thus far be sufficient for to-day; it is plain that everything upon the face of God's earth has a design, some good purpose to fill, which by man can be carried to excess, but is that a valid reason to deny even the moderate use of things?

"But why do you laugh at total-abstinence men?" wrote to me lately, in a fit of hateful anger, a correspon-

dent who had become acquainted with my right name.

There are people who get angry when oddities are assailed, not because it concerns them in any way, or because it touches them individually, but because they believe such criticisms to be a cut and thrust aimed at their enjoyments.

They say: why do you fight, why do you wish to destroy, follies that are fine sport for those who look on? Without its silly whims the world would be awfully tame and terribly tiresome. Consequently let all such live in peace.

I agree completely with those who talk thus, except on one point. To criticise and to destroy are two very different things. I have much respect for those who are temperate in all things. I can not but laugh a good hearty laugh at all such extravagancies as TOTAL ABSTINENCE! Such hair-brained notions richly deserve the cudgel of censure. These gentlemen, in spite of all raillery, will stick to the white neck-tie, to short, flat hair, a smooth, shaven face with sober, sorrowful looks, and will forever conspire to make us dress, look, think and drink as they do. Oddities are tenacious of life, sarcasm may restrain them within bounds, they can not be destroyed.

It is the same trouble that ails me; am I not tiresome and ridiculous enough to write as I do—moreover, do I not possess the deep conviction of my conceit—a fact that can not be said of the great majority of those who are ridiculous—and yet does this conviction stop my pen? Does it keep me from sending you, now and

then, a quantity of blackened paper where conceit breaks through every line? in each word! Not at all!

In one of my former letters I hinted at the whim I once had to try likewise my hand at reform, and how I came to drop the fanciful notion. Let me now further explain; perhaps a word to the wise will be sufficient.

The basis of the society I wanted to establish would have been founded on common sense. You perceive at once that my first disciples would essentially have required, of necessity, the protection of the most absolute secrecy, otherwise they would have incurred the risk of being completely discouraged from the start through sneers and derision; few, very few, would have been audacious enough to profess openly the new principle. This new principle would have had for foundation a certain number of bold truths which I would not have dared to advise the initiated to utter in public even in our free country.

You may judge for yourself from the following aphorisms and articles of faith: "Twice two are four. A straight line is shorter than a crooked one. Gas is not light. Hypocrisy is not virtue. Might is not right. All the days are the Lord's as well as Sunday. Total abstinence is no more temperance than avariciousness is economy."

I am perfectly aware that light minds will laugh while reading these rules of wisdom; but let the serious and thoughtful ones reflect how many vanities, prejudices, passions, interests, acquired and established positions in the world would be wounded, broken, destroyed by a severe application of

only these few rules, and they will see as I did the almost invincible difficulties of the undertaking, and the amount of daring that would have been indispensable to profess my doctrine, aware as I was that this daring, like all honest darings, would be exposed to receive a good many hard names, should it fail to meet with success.

To set up the standard of common sense would have been to declare one's self a public enemy, and, to express it mildly, almost a dangerous animal.

Long and frequent meditations in the great solitude of coffee-rooms, while quietly smoking my cigar and drinking a glass of wine, have brought me to put up with things as they are, while teaching me at the same time possible remedies or palliatives to the existing evils; on the question of intemperance it is the judicious remedy which I have endeavored and will still attempt to whisper, if my readers are not already afraid and tired with the length of my demonstration.

Those who think for themselves (a very limited portion of the human race, I grant), are aware that amongst the civilized communities of the world national prosperity is founded upon agriculture. Whatever may be the triumphs of science, of art, of commerce or invention, they know that agriculture with its several branches must take precedence; some richly endowed minds deeply imbued of this fact, and with a well of sympathy for their fellow man, have made it a life duty to find the best means to augment or vary the products of the fields, in order to increase the resources and the wealth of the country.

In a domain of such extent as that of the United States, with an abundant variety of soils, possessing almost, we might say, all the differences of climate pertaining to our globe, the great desire of a mind who takes pride in the welfare and progress of his country should be to see that soil used to its utmost advantage; upon it should be naturalized, so far as practicable, the productions of other countries, thus furnishing an endless variety of food and occupations for the people, whilst at the same time reducing that much their dependence upon foreign productions. No sane mind doubts but that the culture of fruits and the manufacture of a portion into a mild drink like cider or wine, whenever it can be carried on with profit, is of great benefit, not only in a hygienic point of view, but also commercially speaking. There are hills and valleys enough in this untrammeled part of our sphere to plant thousands of orchards and many a sound vineyard, the fruits and the juices of which could be produced at a price within the reach of all classes. No article of diet, properly used and taken in moderate quantities, is more conducive to health, every thing said to the contrary notwithstanding. We have our authorities, besides my own experience, which is of no value here for assertion, and they shall be produced in time, if I am allowed the favor.

And if I am permitted to glance for a minute at the question in its bearings upon trade and commerce, I know that the majority of my readers will agree that no one, except a mind *non compos mentis*, a fit subject for the

tender hospitality of the State in a quiet retreat like that at Jacksonville, will deny its importance and vast influence on the general welfare of the nation, especially when we take into consideration the many trades and professions which are directly and indirectly furnished employment through

its means, a fact of such importance that it should never be lost sight of, though a few men may need a brick in their pockets to balance the turkey they hold in their hats.

DR. AMPELOS.

GOLDEN HILLS VINEYARD, Nauvoo, Ills.

PROPAGATING VINES.

MANHATTAN, Riley Co., Kansas.

GEO. HUSMANN, Esq.:

Dear Sir:—While binding volume 1 of the *GRAPE CULTURIST*, to-day, I happened to look through it and saw an essay by A. E. TRAUBE, a communication by SAMUEL MILLER, and some of your editorial remarks about propagating grape vines.

I must confess that I could hardly believe that a man of your sense and intelligence would have penned such an article as appears on page 79, it is so much different from my experience, although undoubtedly it is yours. You compare a layered plant to a child taken from its "mother's breast and feeding it on meat and bread." Notwithstanding, you say "it has drawn a large share of sustenance from" the mother plant; while the cutting, you say, has made "all its growth by its own intrinsic and independent vigor."

Now I take it from my own tests, as well as from my reason, that the layer has some "independent vigor," besides the great advantage of "sucking" its mother until it becomes a full grown man. It is *not* taken from its "mother's breast" and fed "on meat and bread" until it has arrived at

manhood's prime, when it would be a shame to let it *tug a' the teat* any longer. The layer not alone draws nourishment from the atmosphere through the action of the leaves, as well as food from the soil, but in addition it is fed all it can eat or "suck" from its "mother's breast," while the cutting has not this advantage. Why, then, should it not be a better plant by far than a "cutting root"? When I speak of layers, I mean those properly propagated, by the mode I propagate all my plants, and which I will presently explain.

The objection you make against layers because they must be put deeper in the soil than they were in the nursery, is again contrary to my experience, as well as that of others in this neighborhood. I cannot consume space in giving many instances, but will give one. WM. PHILLIPS, of Manhattan, last spring procured 75 layered vines from me—71 of them lived. At the same time he planted 50 "cutting roots" of No. 1 from _____ nursery, and only *five* lived. The 50 were bought from a dealer of Manhattan.

My experience as well as my reason teaches me that by layering vines some

varieties will produce plants that cannot be obtained from cuttings. Is not this strong evidence that it is *the mode* to produce the best plants of any species or variety?

If by layering a vine we can obtain a root that cannot be grown by cuttings, because it requires the aid of the parent vine to nurse and support it, is it not reasonable to suppose that those varieties that "take root" easily from cuttings would be far superior if assisted by the mother vine in its growth the first year? I admit it takes some vigor from the parent vine, and roots ought to be propagated from it only every alternate year. I admit that poor layers are produced, but there is one mode of propagating layered roots that cannot be surpassed by any other method that is known to me, and I think I have tested every mode.

In producing roots by cuttings, you throw down a summer's bunch of "bread and meat," and the child must help itself. Is this the natural way of rearing children from their birth until their adult period? If so, it is unknown to me. I have seen mothers mature their children by giving the milk provided for them by nature, the same as I would give the layered root the milk (sap) of its parent vine, provided for it by one of the most beautiful laws in nature, for the production of fruit or enlargement of the vine, either or all of which is in accordance with natural laws. But some say that it costs too much to produce plants in this way, where it can be done with the wood taken at the pruning, that otherwise would go on the brush heap. My experience

accords with what a "chap" "away down" in Maine, says in speaking of plants, that "the best are the cheapest in the end." If you ever read that excellent book, "Grapes and Wine," you have seen this before.

I have planted the best roots that could be obtained from those who are reputed to be the best of propagators, and I never yet saw a "cutting root" to compare with the *best* layers, although there are some very good cutting roots sometimes produced. It is a deplorable fact that *our* country is flooded with the most inferior plants that mortal eyes have ever looked upon, and are readily purchased by those who are inexperienced, merely because they are cheap.

I hold that the fruit of a vine, the roots and cane of which are perfectly developed, is less liable to rot and mildew than the unripe wood of the cheap plants hawked around by peddlers.

I started out to speak of propagating plants, but if I would commence, my paper would be too long. In my next I will give you the mode that my experience has taught me by which the best possible plants are propagated.

Truly, &c.,

A. M. BURNS.

[If the object of the above communication was only to tell our readers that a *good* layer is better than a *poor* plant raised from cuttings, we fully concur in that view, but do not think it is "anything new or striking." Otherwise we cannot see that our correspondent has *made* a point or *proved* it. Long experience has taught us, that a *good* plant grown from a cutting, will generally grow

and flourish better than the best layer. Our correspondent quotes an instance where a purchaser saved *nearly* all of a lot of layers he obtained from him, while he lost nearly all of another lot grown from cuttings, although purchased from a nursery and called No. 1. Had they really been No. 1, and not damaged in transit, we can assure him that they ought all to have grown. But perhaps they were damaged or dried out before they were planted.

He also quotes the varieties that do not readily grow from cuttings, as proof of his doctrine. We can tell him that nearly all the old planters of Norton's Virginia would rather plant even that variety, if grown from cut-

tings, than those grown from layers. Every propagator of that variety knows that it is one of the most difficult to grow from cuttings; yet some succeed in propagating it in that manner to a certain extent. Will he deny that a layer must of necessity receive a severe check, if separated from the mother vine, and suddenly deprived of all the sustenance it has so far drawn from it? We can assure him, if the layers he grows are no better than we received from him about six years ago, we would rather be excused from calling them *plants* at all. That poor plants grown from cuttings are sold, does not detract from the value of the good ones.—EDITOR.]

NEW HAVEN WINE COMPANY.

NEW HAVEN, Mo., Sept. 4th, 1870.

Editors Journal of Agriculture:

At the last meeting of the New Haven Wine Co., held July 27th, Mr. John Vallee, of this place, displayed seventeen varieties of grapes from his extensive vineyard; the names I give as follows: Concord, Hartford Prolific, Rebecca, To Kalon, Anna, Creveling, Australia, Clinton, Miner's Seedling, Franklin, Naumkeag, Marion Port, Norton's Virginia, Meade's Seedling, Kingsessing, Taylor or Bullit, *Golden Concord*. The last-named grape is a white seedling of the Concord, grown by Mr. Vallee, and is worthy of attention by all grape growers. The vine is a strong grower, healthy, with foliage somewhat lighter than its parent; bunch, medium, compact and shoudered; berry same as Concord, of a beautiful light-yellow color, approach-

ing almost to a golden; skin, thin; flesh, juicy; few seeds, often not over one or two; and of a remarkably fine flavor, losing much of that foxy flavor so prominent among our principal varieties. It was justly favored by all as being "*very fine*."

Mr. Vallee deserves to be honorably mentioned among grape growers, as well as his seedling, for his indefatigable efforts in the cultivation and improvement of the native grape. He has several other seedlings which we have not as yet seen, but they are also said to be "*very fine*," and we trust he will reap the fruit of his labors, when he offers plants from his new seedling for sale.

S. C. W. MILLER, Pres.

CHAS. A. BRAGG, Sec.

[We clip the above from the *Journal of Agriculture* as we think it of general

interest to our grape growers. We could only wish that the secretaries of Grape Growers' Associations would send such communications to us *direct*, for while we do not begrudge our Agricultural Journals such items, we can not help but think that a Journal devoted specially to grape culture, would be the most proper medium for such communications. We are laboring in *their interest only*, and think we

are entitled to all such intelligence from them, first and foremost.

We know Mr. Valle as a very intelligent and industrious grape grower, and would like to hear more about his seedlings, especially about the "Golden Concord," and wish the New Haven Wine Company success. They have a good location, and a number of intelligent grape growers, two of the principal elements of success.—EDITOR.]

NEW GRAPES.

DELAWARE, Ohio, Sept. 23, 1870.

FRIEND HUSMANN:—I send you, to-day, herewith, a little box of grape samples. The black grape is a cross between Delaware and Concord; the red grape is a cross between Taylor and Grizzly Frontignan; and the few berries of a white grape, are the very last I have left of the first fruits of a cross between Concord and Chasselas Musque; these last are not in best condition, as they were picked the 9th, two weeks ago. The *leaves* are from the Taylor Hybrid vine. I do not think the Taylor Hybrid is quite ripe; but the birds had commenced taking them, and I thought I must send them now, or not this season. The vine is a small one, single cane tied to a small stake; has borne one year before, and had some dozen or more bunches, and about the same this year.

Marthas have ripened admirably this year; and the vines are as nearly perfect in health and hardiness as one could ask or desire. It is, so far, the white grape for the people. In quality it is certainly an improvement

upon the Concord; and many persons pronounce the grape "better than Delaware." This is not according to my judgment; but it is an evidence that Martha is acceptable to the popular taste, and at least "very good." Eumelan, I am sorry to say, has mildewed very badly, although in the early part of the season it made a good growth.

Walter has also utterly failed here; lost all its leaves before ripening any wood. The Croton, Mr. Underhill's new seedling white grape, a cross between Delaware and Chasselas, has made a very satisfactory growth, and though not absolutely exempt from mildew, has held its foliage very well, and is ripening its wood finely. It has held its foliage much better than the Eumelan, and as well as many of Rogers' Hybrids. In this respect, it has done better than I expected from the foreign appearance of its foliage. It will, doubtless, be a splendid amateur or garden grape; and I am not without hopes it may succeed in vineyard in favorable localities.

The Senesqua, Mr. Underhill's black

grape has made somewhat stronger growth, has heavier foliage than the Croton, and has done well in every way. It is also very promising.

The season has been unusually dry, and grapes have not attained their usual size here, but they have ripened better than before for some years.

Reports are favorable, especially from the Northern Ohio vineyards, and the grapes and wines will probably exceed in quality, if not in quantity, the produce of any former year.

We had the finest show of grapes at our Ohio State Fair last week, that I have ever seen in this State, principally brought from the Lake Shore.

As ever, yours truly,

GEO. A. CAMPBELL.

GEO. HUSMANN, Esq., Bluffton, Mo.

P. S. Both the black and white grape are from Concord seed. The white grape is, I think, rather stronger in growth than Concord, and has heavy, coarse foliage, quite woolly on the under-side.

For Grape Culturist.

NAUVOO, Ill., October 10th, 1870.

FRIEND HUSMANN:—I have just read your Walla Walla correspondent's letter on the province and duties of our beloved "GRAPE CULTURIST," and I agree with him thus far; but I must add that I know him to be hugely mistaken when he calls Dr. Ampelos a champion of drunkenness(!) Let him read again the Doctor's articles, without passion or prejudices, and he will no doubt see that the Doctor's pointed shafts are directed against hypocrites and fanatics who affect to legislate *against the interests*

The black grape has foliage in substance like Concord, but much the shape of Delaware. In growth, not much stronger than Delaware.

CAMPBELL.

[Thanks for your favors. I am sorry to say, though, that the grapes arrived a week after sending, and in such a dilapidated condition that it would be unfair to judge them from it. These expressmen do not deliver as promptly as we could wish. The black grape did not impress us very favorably, but it may be owing to the partial decay. The Taylor Hybrid seems to us to be of good quality, pale red, bunches and berries about size of Delaware. We think it would be a valuable wine grape, if it proves hardy and productive. But the best in quality is undoubtedly the white grape, which as far as we could judge from one berry, is very fine indeed. We should like to try them all here, where we think they will improve in quality.—Ed.]

of grape growers. Did your correspondent live in our county and State, he would meet much of that absurd legislation which denies to a man his God-given right to drink what he pleases, whilst it compels him to send his grapes to market, often when he has no market near at hand. I believe the Doctor is doing a good work; I admire his bold and witty way of pulling the masks from the faces of the hypocrites at whose hands we have often suffered. I like it in *mine* and want more of it. After reading the sober, practical lessons of the

GRAPE CULTURIST, I am thankful for something that relaxes my nerves and causes me to laugh at the expense of my enemy. This, no doubt, must be

the feeling of most of your readers engaged in grape culture and wine-making.

Yours truly,

EDW. C. BAXTER.

REPORTS ON GRAPES.

(Continued from October Number.)

Ives.—We were not so well pleased with this variety this season. It yielded abundantly, but the must was light, and the grapes ripened unequally. It will not yield the same quantity as Concord, and needs more addition of sugar to the must. Still, it is reliable, and will succeed nearly everywhere.

Lindley (Rogers' 9).—Did very well; produced a heavy crop of fine fruit, which will make a superior white wine. Still, its foliage is rather thin, and not quite as sound as we could wish.

Louisiana.—Bore a very fine crop of superior fruit; will, we believe, make the finest white wine in our cellars; very healthy fruit and foliage.

Marion.—Produced a very heavy crop of handsome, compact clusters, and may be valuable for red wine; has a very dark juice and a good deal of the "scratches" of the *Cordifolia* class, to which it belongs.

Martha.—Very fine, free from disease, and gave an abundant crop.

Mary Ann.—A very heavy crop of handsome bunches, earlier than Hartford, and at least as good; valuable for early market.

Massasoit (Rogers' 3).—Very fine; better, we think, than *Delaware*; ripens earlier, shows better; was healthy

and bore an abundant crop. We value it highly, both for table and wine.

Maxatawney.—Bore a fine crop of superior fruit; healthy, hardy and productive, and not at all late, as it ripens much earlier than *Catawba*.

Merrimack (Rogers' 19).—A beautiful fruit, but has been somewhat subject to rot. We would prefer *Wilder*, as of better quality and more healthy.

Miles.—Very early, but a very small bunch and rather indifferent quality.

Mottled.—A very pretty grape, of the *Catawba* type; handsome, compact bunches; seems to be healthy and of good quality.

North Carolina Seedling.—Produced an abundant crop, although it showed a little rot; makes a good wine, if properly managed, and is very reliable.

Northern Muscadine.—Always reliable and productive, but very foxy.

Norton's Virginia.—An immense crop of the finest quality; one of the most reliable of all.

Perkins.—Very productive, but too foxy for our enlightened age; will do for those who laud the *Draent Amber*, as it is a good deal better, though of the same type.

Rebecca.—Small crop of small bunches, and not as good as *Maxatawney*.

Renz.—An abundant bearer, healthy and hardy, and may do as a wine grape. We would prefer it to *Ives*.

Requa (Rogers' 28)—Fine quality, and the vine seems to be healthy. It bore its first fruit on young vines.

Rogers' Hybrids not named.—No. 2 is a fine, late, black grape, with magnificent bunches, of very good quality, rather late. We are inclined to think much of it, as it seems to be productive, healthy and hardy; will make a good wine.

No. 8—Very good for our location; very productive; late, resembling Goethe very much; a fine late market grape; healthy.

No. 12—Very good quality, but rather loose bunch, and deficient in foliage.

No. 36—Very large berry, but loose bunch, of good quality, with Frontignan flavor; may improve with age of vines.

Rulander—Of very fine quality, healthy; produced a handsome crop, and, as it makes a very fine wine, we can recommend it for Southern locations as a reliable grape.

Salem—Fruit of very fine quality, but vine a slow grower here, and, so far, a poor bearer, with tender foliage.

Taylor—Had a very fine crop of compact, nice bunches, and may reclaim its character for imperfect bearing, when the vines become older and are properly pruned and trained.

Telegraph—A very abundant crop of handsome, medium-sized, compact bunches; valuable as an early market grape, and will make a nice red wine.

To Kalon—A poor, unequal crop of fruit, as usual; of no value here.

Union Village—A big thing; immense bunches and berries, butrots, and ripened unequally. We would much prefer the Wilder.

Weehawken—Made a good growth, and held its foliage; has shown but little fruit so far.

Wilder (Rogers' 4)—Splendid in every respect—large bunches, large berries, fine quality, very productive, and holding its foliage well, without disease; one of the most valuable for table and market.

EDITOR.

Mt. STERLING, Ky., Sept. 25th, 1870.

GEORGE HUSMANN, Esq.:—Permit me to give you a few items in reference to the grape in this country. Montgomery county, Ky., is in the Blue Grass region and approaches the mountain range on the east. The soil is limestone, with compact clay subsoil, some locations being porous. Many varieties of the grape grow vigorously, with healthy foliage and well ripened wood. I am of opinion, that the best improved varieties would, under proper culture, bring an ample return. But few vines are planted and these receive little or no attention, but, nevertheless, produce fine crops of grapes. The Catawba, with a few other varieties, are the only ones grown here.

Dr. Jeffries, a resident of our county, and whose gardens I visited in August, is cultivating Hartford Prolific, Concord, Catawba and Delaware. I never witnessed a more splendid exhibition of fruit. The Concord, Hartford Prolific and Catawba, were loaded with bunches—large, well set and perfect—averaging ten ounces in weight. Some of the large bunches weighing as many as twenty ounces, each. The whole, the most pleasing sight that a lover of fine fruit would wish to see. The

Doctor's Delawares, of which he has but two vines, were loaded with grapes; bunches large, well grown and set thick on the stem—so close you could not run a cambric needle through the bunch without piercing the fruit. A most beautiful grape indeed. The Doctor's Catawbas are perfect, large bunches and free from disease.

I am a subscriber to the "GRAPE CULTURIST," a reader of your valuable work on the Grape, and something of an amateur grape grower, and am now putting out a vineyard in Kansas, near the Capital.

Give us your opinion of grape culture in Kentucky. There are no less than three or four varieties of wild grapes growing here—one of which is a white grape—but not having seen it, cannot speak of its qualities. Another, a purple grape, same size of Catawba, but very acid and not good.

At some future time, I will give you an account more at length, with reference to soil, climate and varieties tried.

Yours very respectfully,
J. M. BENT.

[We know but little of Kentucky climate and soil, but would think that section of the State would certainly be adapted to the culture of grapes.—ED.]

LONE JACK, Mo., Sept. 29th, 1870.

MR. HUSMANN,

Dear Sir:—Perhaps my experience in grape culture will not be out of place. I set my first vines three years ago last May, with 1,000 second class plants to begin with. I now have five

acres in grapes and three in bearing, from which I gathered 10,000 pounds this season. I set the first vineyard I ever saw, and from the instruction I received from your writings I have progressed so far. I have thirty-two varieties, only a part in bearing. Varieties in bearing: Concord, Hartford Prolifie, Isabella, Clinton, Ives, Rulander, Cunningham and Delaware. Isabella and Clinton not worth cultivation here; both rot badly. The Delaware has dropped all its leaves, except those that are grafted on Concord roots. My Norton's, Catawba and Herbemont, are not bearing yet, but all look well. The rest of my varieties are grafts on Concord and Isabella stalks. Those on Isabella roots all show mildew, and those on Concord roots are healthy.

I have grafts of the Peggy, Hermann, Weehawken, Black Hawk, Brant, Antuchon, Massasoit, Wilder and Goethe. I have one vine each of Black Malaga and White Malaga. I got them from California; they have not ripened their wood; won't do here. The Brant sunburns very badly. I have Perkins, Maxatawney, Martha, and Cynthiana grafted on Isabella, and they all show mildew. I shall graft no more on Isabella.

My Peggy and Hermann which were grafted in April last, shows fruit. I think they are in a hurry. I shall set two acres more this fall of the Martha and Goethe. Am I right? I put out one hundred thousand cuttings last spring, but some varieties failed entirely; I will get 10,000 vines, perhaps. This is on account of dry weather.

I commenced without \$20 in money, and I have not got that much now. I

hold my own as well as could be expected. Yours truly,

ISAAC MARTIN.

[We think you have done remarkably well under the circumstances, and certainly deserve to succeed, for your industry and perseverance. You are all right with Martha and Goethe, they are safe and reliable.—EDITOR.]

—
ALEXMARLE COUNTY, Virginia.

Also here, a good year for vines, wine and grapes, though for a time it looked as if the fairest prospect for grapes we have had, so far, would have been entirely ruined, when, during the month of June, just as the vines were in full bloom, wet weather set in.

Spring opened very favorably here—severely cold weather in March; April mild and pleasant. The Clinton, Concord, etc., showed expanded buds, and in some instances fully developed leaves, about the Easter holidays; while Delaware, etc., showed such not before the last week of April. By the 8th of May, shoots were from six inches to three feet long, and everything had been thinned out to from one to three shoots, tied up as needed, and the blossoms, wherever they showed, taken off. If the thinning out had to be done over again, I should leave to Delaware but one, and to all other varieties one or two shoots, according to strength. As it is at present, the best Delawares, having grown fully twelve feet, are such where but one shoot was left; while, whenever two remained, a growth by far inferior to the first was arrived at, notwithstanding that these plants at time of thinning out looked the strongest. As for Clinton, I noticed

about the first of May some extra strong plants with four or five shoots, those nearest the ground one-third of an inch strong. For an experiment, I left three. These to-day are scarcely half an inch, while where but two were left they sometimes exceed an inch in diameter nearest the ground, and have by far the best laterals. That some of these laterals show fruit already, even, does not surprise me so very much, as I have noticed the same thing on the year's laterals of bearing vines before now, though never before have I seen fruit on laterals of vines in their second year, main cane and laterals of the same second year.

At this date only Diana has lost most of its foliage; all others look strong and healthy. Delaware, and, above all, Norton's are growing on, which, I think, may strengthen the Delawares, and cannot hurt the Norton's. Norton's, Concord, Clinton, Hartford, Alvey, Diana and Ives made satisfactory growth to bear at least half a crop in '71. Only Delaware averaged a rather puny growth, and of 3,600 vines I do not expect one-third to bear next year.

In the quantity produced by bearing vines in the vineyard of my neighbor, W. Hotopp, there was a great improvement this year, thanks to the longer pruning advocated by **THE GRAPE CULTURIST**. Concords, which last year hardly produced 7 lbs., bore from 25 to 30 lbs. of fine grapes, while one of the same age on same soil, pruned in old style, yielded less than 10 lbs.

Mr. Hotopp cut above amount from his vines, though he had given up all hope almost of any grape crop when,

just about blooming season, the rain kept pouring down.

Delaware, and, above all, Diana produced more than ever before; but both lost most of their leaves about two weeks ago by the ravages of caterpillars, both large and small kinds. The health and strength of the vines showed very forcibly by many young leaves bursting forth in place of those destroyed.

Mr. Hiotopp is now making wine, commencing with Concord and Delaware. Having found no difficulty to dispose of last year's vintage advantageously, he prefers this to shipping his grapes to a rather poor market this year. He has about nine acres in bearing. There are several others, also, who have from one to three acres each in bearing this year.

Respectfully,

FRDK. HILDEBRAND.

CHARLOTTESVILLE, Sept. 5th, 1870.

[We do not think it advisable to grow such very strong canes, and prefer three to every strong-growing vine. For Delaware and other weaker growing kinds, two canes will be enough.

We are rejoiced to hear that our advice has done some good.—ED.]

TOWN POINT, Cecil Co., Md., Oct. 10th, 1870.

MR. GEORGE HUSMANN, *Editor Grape Culturist*:

Dear Sir: Our report for this year is rather less favorable to our own success than would have pleased us, could we have had our own ruling. The severe hail of May 10th was succeeded with a spell of wet weather before the Concord vines had recov-

ered their vigor, and as a consequence mildew, followed by rot, set in strongly upon them, and our loss was severe. We can only report an average of rather less than one pound to the vine — from fully established vines — and the fruit very straggling and about ten days later than should have been in ripening. Our markets were glutted with fine fruit, selling at from four to ten cents per pound, and as a consequence we turned our entire crop into wine, and have now in our cellars as the result of the year's labor about 1,000 gallons of young wine, about one half white and one half red. So far as the result will justify, we are very much pleased with the Concord as a white wine grape, and should it taste when ripe as well as it looks now, we are very well satisfied with our 15-acre vineyard of it, even should we never be able to sell a single pound of fruit.

The vines generally are in fine condition for a full crop next year, should the hail spare them.

Our Clinton, Creveling and Diana vines we consider as cumbering the ground, and will take them up this fall. They were all planted five years ago next spring, at the same time with our Concords, yet we have not had ten pounds of fruit from the 2500 vines in that time, and we will waste our ground and time on them no longer.

Our spring planting of Salems, Goethe and Nortons have done well, the Salems suffering somewhat from mildew during the wet spell before alluded to. The foliage of the Goethe with us is the hardiest of the Wilder, Salems or Goethe, keeping their leaves green and fresh the whole season in

our cutting patch, while both the others lost theirs from mildew.

We received from Messrs. Ferris & Caywood in the spring two fine plants of the Walter for trial; also from S. W. Underhill single plants, each of the Croton, Senasqua and Large White, all of which we planted in a favorable location in our Salem vineyard then planting, giving them, however, no other advantage than selection of situation as regarded the ground.

The Walters, I am sorry to say, have done nothing, making, perhaps, six inches of wood—losing their leaves from mildew and remaining nude all the season. Hope they may do better next year, as I am in love with the fruit.

The Croton and Senasqua have done finely—if anything, the Croton rather the best. They withstood the mildew bravely, and although closely watched every day, failed to show the first spot of blemish on their leaves, and have ripened up a nice lot of wood. The Large White did well, but received a check in mid-season, stopping the growth, but is perfectly healthy.

I hold to the Croton as a grape that will occupy the foremost position at some future day, both on account of its quality and healthiness.

Please excuse length of communication, but I could not stop sooner.

Yours truly,

EDWARD P. HIPPLE.

[We are sorry to hear of your bad luck. Hail is not a very welcome guest, as we know from dear experience, and will reduce the crop materially. But "better luck next time" was one of the wise saws of Jacob Faithful's sire, and we trust it will hold good with yon.

Creveling does well with us, but Clinton and Diana are decidedly "poor sticks" here also, and the sooner they are discarded the better. Your experience with the Goethe corresponds with ours. If the vine and grape is not quite perfection, as a producer of cheap and good white wine for every body, it comes nearer to it than anything we have yet.

Walter is no doubt very fine, *when you can get it*, but we are afraid that will be seldom. Your experience corresponds with ours of last year. Croton and Senasqua have grown well and healthy here also, but it is altogether too soon to form an opinion about them yet. "One swallow will not make summer."

You need no excuse, as your report is a very interesting one.—EDITOR.]

THE ST. LOUIS FAIR—OCTOBER 3D-8TH, 1870.

The lateness of the season, the prominence given to stock and other interests, both in the premiums and the space allotted to them, and other circumstances, made Horticulturists and especially Fruit-growers, little inclined to participate, much less to take a

lively interest in the great St. Louis Fair. But their attempts to have *separate "Floral and Horticultural Exhibitions"* did not prove so far successful, and as the managers of the St. Louis Fair Grounds had this year finally corrected *one* of the great evils,

the want of proper space, by converting the old arena into a spacious well adapted hall for the exhibition of flowers, fruits, and the products of field and garden, the display in these departments was, this year, far better than heretofore; and but for the fact that peaches and pears were an entire failure and the apple crop very poor, throughout the West, the space allotted to fruits would still not have been sufficiently large.

But our special branch, the grape, was well represented. There we saw the first exposition of California fruit. The grapes were named (some incorrectly, we think,) as "Purple Damascene," "White Muscat," "Flam Tokay," and especially the famous "Mission Grape." In size of both bunch and berries they were fully equal to the best specimens of grapes grown under glass, we ever saw, but they were more fleshy than juicy—and even considered as table grapes, are more ornamental than useful; none of them should be called wine grapes. These, together with some pears of enormous size, especially Vicar of Winkfield, weighing one and a half pound each, and also some pomegranates, were from R. M. Crandall, Auburn, Placer county, Cal.

There were but two bunches of grapes grown under glass on exhibition, and we have seen finer specimens before, though these were very creditable, the more so, as they came from Wisconsin; a loud rebuke to our wealthy St. Louis men, who either have no graperies, or else deem the public not worthy of seeing the fruit they raise, or the fruit not worthy to be seen. In Missouri grapes, grown in the field, the exhibition was much inferior to that at the Hermann

fair. The principal exhibitors were Messrs. Isidor Bush & Son, to whom nearly all the first premiums in this department were justly awarded, for the largest and best collection of grapes: for the best six bunches of Norton's Virginia grapes; the best six bunches of Catawba; the best and largest number of bunches on one vine: the best collection of pears, etc. The earlier varieties had been kept in the fruit house (Nice's patent,) for that purpose, but we think that they would have preserved better on the vines. The largest six bunches Concord exhibited, the finest specimens we have ever seen, were raised by Mrs. Chas. Beardslee, (Mr. Kuhle, gardener,) on Dr. Claggett's farm, near Kirkwood. Mr. Mason, of same place, had even a larger number of varieties on exhibition than Bush & Son, but they were inferior in specimens, and less valuable varieties and thus were awarded the second premium. There was not a single variety on exhibition that we did not see before. In vain did we look for the Croton, Senasqua, or any of Arnold's Hybrids. This may be partly due to the fact that *no* premium is offered for the best new grape seedling, and yet the directors of the St. Louis Agricultural Association dare to say they "*feel assured it is the most complete and thorough list of premiums ever devised.*" They may probably also *feel assured* that their awarding committees are selected with the greatest care from among the best judges for the respective branches; but we beg leave to differ, so much so that their awards have but little value. It is this bad selection of awarding committees which has justly caused our friends.

Michel & Kern, who had, doubtless, the very finest display in the floral department to withdraw from competition before the awards were made. In native wines, Messrs. Bush & Co. had the largest and best collection, and were awarded several premiums. The American Wine Company took the first premiums for sparkling wines, while the

Pleasant Valley Wine Company (Bush & Co., agents.) obtained the second premium for same. Messrs. Poeschel & Scherer, of Hermann, Mo., also took several premiums for still wines. In our next number we will give a detailed list of the premiums awarded, if we can obtain it from the Secretary, of which we have no doubt.

THE RESULTS OF THE GRAPE CROP AT BLUFFTON.

The vintage is at last over, and we have found leisure time enough to sum up results and draw conclusions, which we will try to give to our readers in a condensed form.

We had $27\frac{1}{2}$ acres in bearing this season, of which 17 may be called established and bearing a full crop, $10\frac{1}{2}$ acres bearing their first, and thus only a partial, crop. Of these, about 12 acres are located in the river bottom, $15\frac{1}{2}$ on the bluffs. The latter were twice struck by hail, and the Concordes also severely touched by frost in April, by which the crop was diminished at least one-third, while the bottom vineyards escaped both hail and frost. The varieties were divided about as follows:

Nortons, 11 acres, 9 in full bearing, 2 bearing first crop, 70,000 pounds.

Concord, 9 acres, 5 in full bearing, 4 bearing first crop, 50,148 pounds.

Goethe, 2 acres, bearing first crop, 5,366 pounds.

Creveling, 1 acre, bearing first crop, 420 pounds.

Delaware, 1 acre, $\frac{1}{2}$ in full bearing, $\frac{1}{2}$ bearing first crop, 477 pounds.

Clinton, $\frac{1}{2}$ acre, in full bearing, 1,234 pounds.

Ives, $\frac{1}{2}$ acre, in full bearing, 3,516 pounds.

Taylor, $\frac{1}{2}$ acre, in full bearing, 602 pounds.

Herbemont, $\frac{1}{2}$ acre, in full bearing, 489 pounds.

Telegraph, $\frac{1}{2}$ acre, in full bearing, 798 pounds.

Hartford, $\frac{1}{2}$ acre, in full bearing, 1,615 pounds.

Other varieties, 2 acres, 1 in full bearing, 1 bearing first crop, 3,050 pounds.

Total, $27\frac{1}{2}$ acres, 17 in full bearing, $10\frac{1}{2}$ bearing first crop, 137,715 pounds; or an average of about 5,000 pounds to the acre.

This does not include the amount consumed on the place, taken to exhibitions, etc., which may safely be put down at several thousand pounds more, so that the crop has been over 140,000 pounds. Of these, about 125,000 pounds were made into wine by the company, the balance being used by the tenants for wine, marketed, etc.

If we take into account the vicissitudes mentioned before, which diminished the crop on the hills to a considerable extent, the manifold ravages

of birds and animals, which are unavoidable in a new settlement, and by which fully one-half of the earlier varieties were destroyed, and also that a great part of these vineyards bore for the first time, we think we have reason to be proud of, and feel thankful for, such a crop. In some of the vineyards the yield was really enormous. One of our tenants, Mr. George Schneider, who holds two leases in the bottom, of which about 6 acres were bearing, gathered over 64,000 pounds, more than 10,000 pounds to the acre. From 2 acres of Concord he gathered something like 31,000 pounds, from 3 acres of Norton's 23,600 pounds, and from $\frac{1}{4}$ acre of Ives 3,516 pounds, and part of these were only bearing their first crop.

Of the newer varieties, the Goethe

and Wilder especially have surpassed our most sanguine expectations. The Goethe has even surpassed the Concord in productiveness and healthy, vigorous growth. From 350 vines, planted 6x10, in their third summer, consequently bearing their first crop, on the hills, we received 3,127 pounds of splendid fruit. And besides this heavy crop, they made an enormous growth of wood, which is now ripe to the very tips, the foliage hanging at present date (Oct. 19) on the vines green and fresh.

But we are afraid to weary our readers. Let us hear from them about their crops. In our next number we will give them a table of the specific weight of must from over thirty varieties, from which we made wine this season.

EDITORIAL COURTESY.

“THE GRAPE CULTURIST AND THE FARMERS’ CLUB.—We have heretofore spoken in commendation of the Grape Culturist, edited by Geo. Husmann, St. Louis, Mo., but we fear that we shall be obliged to retract. It quotes a talk on the Scuppernong grape at the N. Y. Farmers Club, and then says: ‘It is certainly amusing—but at the same time disgusting—to see men, who have not the faintest perception of vegetable life, who know nothing about the influence of grafting, but only know that the word hybridizing is in the dictionary, and that it means some horticultural operation, persist in trying to force this grape upon Northern planters,’ etc.—Mr. Grape

Culturist, this won’t do, at all. The ‘Farmers’ Club’ is a peculiar New York institution; it embodies wisdom, science, experience, modesty, and eloquence, in a manner that no other institution ever did before, and probably never will again; and we simply demand that you show it that respect which it merits. Please keep on your own side of the Mississippi. How can you know anything about grapes so far from New York?”

[We clip the above from the columns of the *Am. Agriculturist*, and must say that we at first felt humbled, in fact, dumbfounded and overwhelmed, by this *very gentle* and dignified admonition, given in such a truly condescend-

ing manner. But we have got over our first scare, and trust that, after explaining things, our mighty colleague will let us live a *leetle* longer.

We do not know that we have attacked the New York Farmers' Club, or any of its members. We are even willing to concede, for the sake of peace in the family, that they are all our colleague claims for them, Solons in wisdom, and as eloquent as Demosthenes, or Petroleum V. Nasby, although we confess that we have never seen the agricultural or horticultural society yet, which had not some rather pale lights among its members. But New York is a wonderful place, and so may its Farmers' Club be a wonderful institution. But we take it for granted, that they are as courteous as other societies, or the *American Agriculturist*, and sometimes admit outsiders to their deliberations, nay even allow them to talk, though it be nonsense. This may have been the case in that part of their deliberations, and indeed we supposed so, therefore our remarks. For we ask in all simplicity, is it anything but nonsense to advocate planting the Scuppernong at the North for the purpose of grafting the Catawba on it, to prevent mildew and rot, or that a *new variety* might be obtained by grafting some of our best grapes on it, and when the speaker is not sure whether he means hybridizing or grafting? It was this to which we referred in the remark commented on so severely by our colleague, and it appears plainly from the article it-

self, that Messrs. Fuller, Carpenter and others were of the same opinion with us. Indeed, it was Mr. A. S. Fuller himself, who sent us the article, and wished us to comment on it. We *know* the Scuppernong, because we have tried it long ago; we know it will not ripen here, much less in New York, and therefore know that it is utterly unfit for cultivation at the North.

We fail to see how any passage in our remarks could be so construed as to mean disrespect for the Club. As to the kind hint given "to keep on our side of the Mississippi river," we trust we have as good a right to travel East, in this free country, as our high and mighty colleague has to travel West. We profess to know a little about grapes, even at New York, and so, we think, does Mr. Fuller. We can only say, if the *Agriculturist* knows anything about them, he very seldom imparts that knowledge to his readers, as the word grape is seldom mentioned in his columns. Ours is a paper exclusively devoted to it, and therefore we claim the right to expose grape *humbugs* wherever we find them, even should they be perpetrated in the Farmers' Club. Our colleague claims to be so severe upon humbugs, does he feel bound to cover this with the mantle of Christian charity, simply because shown at *his* peculiar home institution? We are sure none of the *sage* members of the Club could take any offense at our remarks.—ED.]

WINE.

Wine, wine, wine, soul-inspiring wine!
A ruby gem
From the purple stem,
Culled on the beautiful Rhine.

Wine, wine, wine! wine of those good old days,
When love was young,
When Sapho Sung,
And Olympus rang with thy praise.

Wine, wine, wine, the spirits of gay old Rome,
From the crystal cup
Comes bubbling up

And dance in thy sparkling foam.

Wine, wine, wine! the nectar deities loved,
When Orpheus sung
And the sweet lyre rung
To the nymphs in Arcadia's grove.

Wine, wine, wine! come to the festive hall,
When the fair young bride,
And the groom in his pride,
Drinks health and pleasure to all.

Wine, wine, wine! the hygeian nectar sip,
And feel in thy heart
The young blood start,
Though age has withered thy lip.

Wine, wine, wine! to mortals a gift divine!
'Tis no unclean thing
Of which we sing,
For Christ turned water to wine.

JAMES GORDON.

[We gladly give room to the above, and only wish the writer would give us an *American* wine song. Perhaps he has not experience enough in our native wines to be inspired in their praise. We hope he will forthwith make their closer acquaintance, and give us the result of it in verse.—ED.]

A NEW FERTILIZER—KAPNOPHYTE.

We have received from Messrs. E. Whitley & Co., Murfreesborough, Tenn., their circular relating to the preparation of this fertilizer, which they have discovered and patented. They say of it, "It is prepared by the slow burning of pine, straw, leaves, and other vegetable matter, under a layer of earth, by which the mass becomes impregnated with the smoke and gaseous products of combustion, producing a manure of remarkable

strength and efficacy. It not only stimulates vegetation, like guano, but, unlike guano, it permanently benefits the soil. Its cheapness, and the facility with which it is made, commend it to every land owner."

We are inclined to think well of the process, for fertilizing old worn-out vineyards, as we think the ashes of vegetables the best manure for the vine we know.

EDITOR'S LETTER BOX.

LITTLE ROCK, ARK., Sept. 30th, 1870.

GEO. HUSMANN, Esq.:

Dear Sir—I have nothing to say of my *small beginning* in grape growing, except that of over one thousand vines planted only some twenty-five failed to grow. They have done finely this season, though troubled a good deal by the leaf-folders. Mr. Hough, some six miles west of this place, fruited the Ives this year, and is highly delighted with it; thinks it much superior to the same grape grown farther North. What fruit he had was grown from secondary buds, as the primary were killed by our unprecedented frost in middle of April last. In the main, his description of it agrees with yours in the July number of the CULTURIST, except that he reports it a much sweeter, richer grape than the Concord, and without the foxy taste you ascribe to it. He has a very sweet, pleasant wine, of fine flavor, made without any cellar in the hot weather of August, and that without the addition of any sugar. Mr. Hough, who has had a long experience in grape growing in Ohio and States farther north, is enthusiastic as to our future prospects in that direction. He recognizes a peculiar adaptability in our climate and soil to the vine. His experience, so far, indicates that the Ives has a fair prospect of being *the grape* of the State, though Col. Eakin, whose opinion is entitled to much weight, does not coincide with him.

Very truly, yours,

J. W. MARTIN.

[We think if Mr. Hough experi-

ments further, he will change his notion that the Ives is the best he can plant. Here it is certainly not sweeter than the Concord. If his wine is sweet yet, rest assured it is not *wine*, and will not remain so.—Ed.]

REIDSVILLE, N. C., Aug. 12th, 1870.

MR. HUSMANN:

Dear Sir—I trust you will excuse me for intruding on your valuable time. I wish to ask you a few questions respecting the making of wine. You do not mention in your book about sugar, except for the galized wine. I should be glad to know if it is necessary to put any sugar, and what quantity, in Catawba wine; also Concord, Clinton, and Delaware. I made some of each last year, and put at the rate of a pound to the gallon. The Catawba has a sharp taste, which is not generally liked. What can I do to rectify it? I have been told by several persons that sugar is not needed, but I would rather have your advice, knowing you to be a man of experience in these matters. I have planted a vineyard of the above kinds, and they are making good progress, both in growth and bearing. I would like very much to see your vineyards, but the distance is too great.

Yours, respectfully,

G. TOMKINS.

[You overdid the thing, evidently; put in more sugar than could ferment. If your wine has a sharp taste, acetic fermentation has set in, and you will have very good vinegar after a while. Whether Catawba must needs an addi-

tion of sugar depends on circumstances. *Good Catawba* must generally contain sugar enough to keep, but very often a superabundance of acid, tannin, and flavor, all of which is ameliorated by adding *water* and *sugar*. If your wine once contains *acetic acid*, (as I suppose, from your description,) you can do nothing with it but make vinegar of it.—ED.

VINELAND, NEW JERSEY, Oct. 12th, 1870.

G. HUSMANN, Esq.:

Dear Sir—For the benefit of the grape growing fraternity I send you an article on "Grape Culture in Naples Valley," which please publish in the November GRAPE CULTURIST, with your own criticism on the new system. Yours, respectfully,

J. LOEWENDAHL.

[If our friend will refer to January and February No. of GRAPE CULTURIST, 1870, he will find an article, "Treatment of the American Grapevine," by the same writer, and embodying about the same ideas, with our comments on it.—ED.]

CHARLOTTESVILLE, Va., Sept. 11th, 1870.

MR. HUSMANN:

Excuse my liberty in addressing you, but information is wanted, and I must ask it from such as I suppose can give it.

Since 1865 the culture of grapes has engaged the attention of this section, which promises to be a success. We have now in this neighborhood some 100 acres growing, most of which will bear next year for the first time, and more is being planted every spring. This requires a stock company for building a wine cellar, and here is where I desire information. We want to start with a cellar of at least 50,000

gallons capacity. What is the best plan, considering economy, permanency and ability to enlarge?—from what source can I learn what is required for such a cellar, form, substance and plan?—what the probable cost of construction and outfit?—what laborers will it require to manage it properly?—what is a fair or the usual salary or hire for each of these in their respective capacities?—where can they probably be gotten from? Are the above-ground wine-houses desirable, or do they answer the purposes of a regular cellar?

These are the leading points on which I would beg you to inform me. If there be books published which would answer my purpose, give me their titles; but I should prefer, besides this, to get your personal and practical answers on the above points as well as any other points which you know from experience would aid me in my undertaking. I again beg your lenient judgment for addressing you, and trust you will favor me with an answer at an early date. Yours truly,

OSCAR REIERSON.

[We send you the GRAPE CULTURIST, which we trust will give you the information you want about cellars. If you want to make annually about 50,000 gallons of wine, it would take four good hands regularly to rack and manage them, with additional help during wine-making time. You should have one competent man to manage it; he can soon teach good common laborers to do the rest of the work. You can probably obtain one for about \$1,000 to \$1,500 annually, and should advertise for him in the GRAPE CULTURIST.—EDITOR.]

MACON CITY, Mo., Sept. 14th, 1870.

MR. GEO. HUSMANN, *St. Louis, Mo.*

Dear Sir: You will excuse me for intruding on your time when you understand my motives. I wrote you last February on grafting the vine. The method described is a success. The only difficulty in grafting the vine is in keeping down the suckers, or wild shoots. In my opinion the mild days of February is the time with us. The present season has not been as favorable as was 1868. We have had too much dry weather, yet I see by the papers the crops are splendid in some sections. We are but beginners, and that on a small scale. I think that in 1863, from recollection, there was not more than a dozen vines growing about Macon. Since the close of the war there has been more interest taken, but the number set now will amount to eight or ten thousand vines with various results. Some are doing finely, while others are doing poorly, just according as they have been set and handled. For my part, after reading all the different works on grapes, I arrive at the following conclusions: 1st, a thorough preparation of the soil, which means subsoil two feet deep, all the ground not trench; 2d, well grown yearling plants propagated from two years that have made a growth of at least six feet, set 16x16, then with proper after-treatment we may look for some fruit. I am in favor of the broad gauge, clear through, in preparations of the soil. In planting and pruning, in my opinion, a good many of the popular theories must be abandoned for the following reasons: I pruned a Catawba vine for a neighbor this spring that was 12 years old, and was over 80 feet in

length, and has fruited over 200 lbs. of grapes the present season. I know another Concord covering one end of a story and a half house, from ground to gable, carrying at least 300 bunches of well developed fruit. I have an Isabella vine on trellis carrying 250 bunches and occupying 20 feet of trellis. I also planted 20 fine vines in May, 1869, that made an average growth of 25 feet to the vine: trained to two horizontal arms: layered one arm in April, 1870; had an average of 2 1-2 to 3 lbs. of fruit on the layered cane, but not a grape on the opposite arm; pruned from 6 to 10 eyes; some tell me that was wrong to let layers fruit. I put out some 3,000 cuttings this spring that have made an average growth of 6 and 7 feet, and have several Concords bearing a nice little bunch of grapes. I take it for granted that nature don't make any mistakes. I also differ with some of my grape growing friends about summer pruning (or summer slaughtering, as Dr. Warder terms it); but to the point—I see in the August number you talk of abandoning the CULTURIST at the end of the year. We can not think of letting such a valuable work go by the board, but will do our best to sustain it.

J. E. McLAUGHLIN.

[We think you are decidedly on the "broad gauge" system, and are running *that* "into the ground." You are right in preparing your ground thoroughly, but it does not follow because planting 4x4 is too close, the vines should be planted 16x16. Generally the true course between two extremes lies in the middle, and we think you will find it there also, after experimenting some more. Try 6x10, or 8x10, a while, and

we are inclined to think you will find it sufficient. Nature sometimes does make mistakes: if she did not, how could we account for the many poor seedlings brought forth. It is for us to observe nature, correct those mistakes where we can, and profit by our observation. We think if only such plants were to be used for vineyards, which made from six to seven feet of growth from cuttings the first year, there would be but few planted. Two feet of healthy growth will do just as well.

Thanks for your kind intentions toward the GRAPE CULTURIST. If our readers think they need it, why, let them support it, and get others to do so: they may rest assured that we do not intend to sacrifice our money as well as our time on it any longer without an adequate recompense. We have been trying to keep it up for *their* benefit for the last two years. Let us see whether they are willing to do something in return.—EDITOR.]

SAVANNAH, Mo., Oct. 3d, 1870.
GEO. HUSMANN, Esq.,

Dear Sir:—Will you be so kind as to give me a little information concerning grape trellising? I have been reading your GRAPE CULTURIST about two years, but cannot get the information that I want, at present.

I have 4,500 grape vines that I wish to trellis this fall and winter. I wish to know if old telegraph wire, No. 9, will answer for trellis. If it will, I have a chance of getting all I want, cheap. I thought it would be stout enough by using four strands on good posts.

How will No. 10, new iron wire, do?

How long does iron wire last before being affected by rust?

You will very much oblige myself and other friends by answering the above. We expect to be governed by your instructions, as heretofore.

Yours truly,

THOMAS NANCE.

[Old telegraph wire, (which is generally No. 8) will do well enough, but it is much heavier than necessary, and unless you can buy it very cheap, will be more expensive than No. 12 wire, new, which we use, and of which three strands are enough.

We cannot inform you how long new wire will last, but we know of trellis eighteen years old, on which the wire is perfectly sound yet. We think you will have to live a good while, if it does not outlast you. If we live as long as the wire will last on trellis we have put up the last three years, we will get older than we now calculate on.—ED.]

Cash Advertising Terms for 1870.

TWENTY CENTS PER LINE, AGATE TYPE, EACH INSERTION.

Cover Pages Twenty-Five Cents per Line.

BUSINESS CARDS, FIVE TO SIX LINES EACH, \$15 PER ANNUM.

Grape Vines! Grape Vines!

FALL OF 1870!

We offer our usually large and selected stock of all standard and new varieties, including

SALEM,	MERRIMACK,	IONA,	CYNTHIANA,
WILDER,	GOETHE,	HARTFORD,	MARTHA,
LINDLEY,	CONCORD,	DIANA,	EUMELAN,
AGAWAM,	DELAWARE,	HERBEMONT,	WALTER.

SALEM A SPECIALTY.

Our stock of plants will be unequaled, and quality of superior excellence. Salem, with us, is bearing a fine crop of fruit, and must soon become one of the leading varieties in cultivation. It fulfills all that has been claimed for it. For circulars, etc., address

I. H. BABCOCK & CO.,

Lockport, N. Y.

Tilton's Journal of Horticulture AND FLORAL MAGAZINE.

An Illustrated Monthly Magazine devoted to the culture of Fruits, Flowers, and Vegetables. Illustrations of

NEW THINGS IN HORTICULTURE

Will be given in each number.

Subscription Price \$1.50 per annum. Ten Copies \$1 each.

The remaining numbers of this year will be sent Free to Subscribers for 1871. Elegant Premiums given for making up Clubs. Among the contributors for the JOURNAL are

MARSHALL P. WILDER, MASS.

John A. Warder, Ohio.	Henry Ward Beecher, N. Y.	Charles M. Hovey, Mass.
Geo. W. Campbell, Ohio.	Ed. F. Underhill, N. Y.	Fearing Burr, Mass.
Francis Parkman, Mass.	George Such, N. J.	William Saunders, D. C.
Joseph Beck, Mass.	W. G. Strong, Mass.	S. Miller, Mo.
R. Manning, Mass.	William C. Flagg, Illinois.	C. B. Denison, N. C.
Peter Henderson, N. Y.	James F. C. Hyde, Mass.	Wm Parry, N. J.
Charles Downing, N. Y.	Parker Earle, Illinois.	

J. E. TILTON & CO., Boston,
Publishers.

A Sample Copy, Club and Premium List will be sent to any address upon receipt of 15 cents.

CHOICE VARIETIES OF Grape Vines, Strawberry Plants, Raspberry, Blackberry & Gooseberry.

Also, a few Peach and Cherry Trees, the finest growths. Particular attention will be paid to small orders of plants to be sent by mail. For sale by

SAMUEL MILLER, Bluffton, Mo.

WANTED

WANTED—An industrious energetic man experienced in grape growing, to take charge of a young vineyard situated one mile and a half from Little Rock, Arkansas. The location is a beautiful table land, on a bluff elevation of some three hundred feet, on north bank of Arkansas river, overlooking the city and railroad depots, convenient to both; and is, all things considered, the most desirable in the State for a large vineyard. A partnership with responsible party of some means preferred, but this not essential. Correspondence solicited. Address. J. W. MARTIN, Little Rock, Ark.

WANTED several active, enterprising salesmen, to sell wines and plants for the Bluffton Wine Company. Parties wishing to engage, should address.

WM. WESSELHOEFT,
Secretary Bluffton Wine Co., Bluffton, Mo.

WANTED—At the "Ouachita Vineyard," near Hot Springs, Arkansas, a competent man, to take charge of vineyard, orchard, small fruits, and select market garden—an accomplished, sober, industrious man, one who can give satisfactory testimonials of integrity and worth. To a suitable person with family, who can furnish desirable help, an interest in the proceeds or wages will be given. I would prefer a married man whose family fully understand dairy operations, particularly the manufacture of butter and cheese. Hot Springs always affords a good market for all supplies.

Sept. 21. GEORGE W. LAWRENCE, M.D., Resident Physician.

PUBLISHED AND FOR SALE

BY

CONRAD WITTER,
ST. LOUIS, MO.

MUENCH, FREDERICK, *School for American Grape Culture*. Brief but thorough guide to the laying out of vineyards, the treatment of vines and the production of wine in North America.

MUENCH, F., *Amerikanische Weinbauschule und Weinbereitungsllehre, etc.*

Either one of these books will be mailed free of postage on receipt of one dollar.

HESMANN, GEORGE, *The Cultivation of the Native Grape and Manufacture of American Wines*.

On the receipt of \$1.50 this book will be mailed to any address.

SCHMIDT, J. A., *The Diseases of Wine*, how to prevent and how to cure them, according to the doctrines of M. Pasteur.

This book will be sent, free of postage, on receipt of \$2.

C. WITTER keeps a large assortment of books treating on the Culture of Grapes and Manufacture of Wines.

Catalogues sent on application. Please address letters,

CONRAD WITTER,

122 S. E. corner Walnut and Second Sts., St. Louis, Mo.

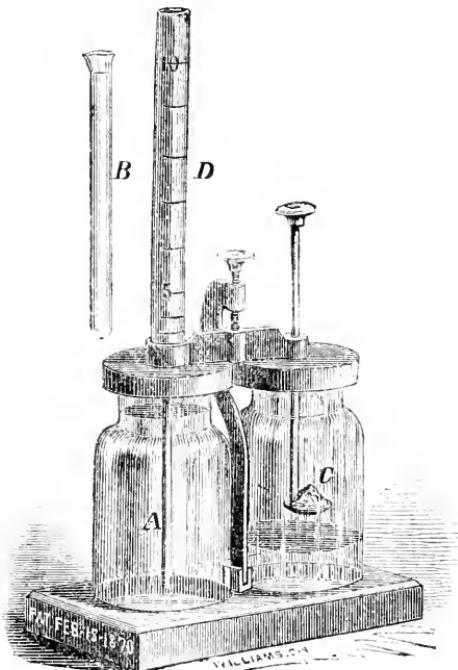
HENRY TWITCHELL,
(late of firm of JAMES FOSTER, JR., & CO.,)
OPTICIAN,

MANUFACTURER OF

**HYDROMETERS, THERMOMETERS and GAUGERS;
INSTRUMENTS, SACCHAROMETERS,**

AND INVENTOR OF

TWITCHELL'S



ACIDOMETER.

Price of ACIDOMETER FOR MUST OR WINE.....	\$10 00
Price of SACCHAROMETER (SILVER).....	10 00
Price of OECHSLE'S MUST OR WINE SCALE.....	10 00

Price list of other instruments sent, on application to

HENRY TWITCHELL,

132 West Fourth Street,

CINCINNATI, OHIO.

sep70-30

SMALL FRUITS A SPECIALTY.

STRAWBERRIES, BLACKBERRIES, Currants and GRAPE VINES
of all the leading varieties, at the LOWEST RATES.

Send for Price List.

Address

JOHN COOK,

(Nursery 2 miles from Baltimore, on old Frederick Road.
Carroll P. O., Baltimore Co., Maryland.

oct70-11

Missouri Wines and Plants.

THE BLUFFTON WINE COMPANY

NOW offers to the trade, and to the public generally, its first crop of wines, grown at Bluffton, comprising, of red wines, Concord, Norton's Virginia, Ives, and Clinton; of white wines, Concord, Catawba, Hartford, Delaware, and Herbemont.

Our wines are of excellent quality, and we are sure that they will give general satisfaction to consumers. Our motto is, "Low prices, good quality, and quick sales;" and Wholesale Dealers in wines will find it in their interest to apply to us. Price lists sent on application.

We also call the attention of Grape Growers to our large and complete stock of plants of all the leading varieties. We shall make it our aim, in our fall trade, to supply our customers with the best of plants, and at as low rates as any reliable firm.

Descriptive Catalogues sent, on application to

J. M. WESSELHOFT, Secretary,

BLUFFTON, MO.

Bushberg Vineyards & Grape Nurseries.

GREAT REDUCTION IN THE PRICE OF

GRAPE VINES

AND SMALL FRUITS.

 **SEND FOR NEW PRICE LIST FOR FALL 1870.** 

Our ILLUSTRATED DESCRIPTIVE CATALOGUE—“More useful to the Grape Grower than some works of much greater pretensions,”—Am. *Agriculturist*,—will be sent by Mail, post-paid, for only 25 cents, either in the German or English Edition, as you may order.

 **Agents Wanted** to canvass for orders for Fall delivery. Terms liberal, profits handsome. Posters, Price Lists, etc., gratis. Address,

ISIDOR BUSH & SON, Bushberg, Mo.

GRAPEWOOD!

TWENTY KINDS!

Immense Stock, especially of

Concord, Ives, Delaware, Hartford, Iona, Catawba, Isabella, Clinton, Rogers' Nos. 4, 15 and 19, etc.

Cut from Bearing Vines before hard freezing, and stored in frost-proof Cellars.

Very Low for Cash. Price List Gratis.

ALSO, LEADING VARIETIES OF GRAPE ROOT IN STORE.

Can ship South safely at any time.

M. H. LEWIS, Sandusky, Ohio.

1,000,000

GRAPE VINES FOR SALE,

Of all the Leading Varieties, true to name.

As I am bound to sell, will sell lower than any one else.

CONCORD VINES, good two-year old, only \$25 per 1,000.

Other varieties in proportion. Also, Currant, Gooseberry, Strawberry, Raspberry, Blackberry, Rhubarb, Roses, and other plants.

Apple Trees, one, two and three years, very cheap.

I will also take good Western Lands, at cash price, in trade.

Address, and send for Price List, and three new Essays on Grape Culture, to

Dr. H. SHRÖDER,

Bloomington, Ill.

HAVE YOU GOT MARTHA?

GRAPE VINES AND SMALL FRUITS.

[Nursery Established in 1857.]

A splendid stock of Vines and Plants are offered the coming Fall and Spring, including nearly every variety known to be of value. The popular and white Grape

MARTHA, OR (WHITE CONCORD,)

In large or small quantities. Also, Arnold's new Hybrids, Eumelan, Walter, Weehawken, Christine, Hine, and all valuable numbers of Rogers' Hybrids; also, Delaware, Iona, Isabella, Concord, Hartford, Ives, Norton's Virginia, etc., etc., in all about one hundred distinct varieties.

Kittatinny Blackberries and Clarke Raspberries in large quantities, Jucunda and Charles Downing Strawberries, Downing's Seedling Gooseberries, Cherry, Versailles, White Grape, and Black Naples Currants, etc., etc.

Send stamps for Illustrated Catalogue and Price Lists to

GEO. W. CAMPBELL, Delaware, Ohio.

D'HEUREUSE AIR TREATMENT.

PATENTED AUG. 6th, 1867, AND AUG. 3d 1869.

For FERMENTATION and GERMINATION, and for PRESERVING, PURIFYING and IMPROVING of Organic Substances.

Exceedingly useful in Malting, Brewing, Distilling, Baking, Manufacture of Wine, Cider, Fruit Wines, Fruit Brandies, Vinegar, etc.; in Sugar Works, Oil Works, Manufacture of Extracts, Preserves; in Storehouses, Transportation of Grain, Produce, Fruit; Purification of Water, etc., etc.

 Rights for States, Counties, Districts, or Establishments, for sale. Apply to

P. O. Box 6844.

R. D'HEUREUSE, New York.

THE

GRAPE CULTURIST.

VOL. II.

DECEMBER, 1870.

No. 12.

DECEMBER.

WORK FOR THE MONTH.

Pruning may still be continued, if not finished in November, cuttings made and stored away. This will also be a good time to manure vineyards, where needed. The best fertilizer we have used is fresh surface soil from the woods, especially where the soil has been washed away from the vines. If animal manures are used, they should be well decomposed, mixed with vegetable matter, etc. We have found but little use for manures here, in the rich virgin soil of our hills, and would prefer a surface dressing of surface soil, leaf mould, etc., to all others.

Trellis can also be repaired and made, and even planting may be continued when the ground is open and works well. Remember that every days' labor now done, is so much gained in spring, when you will have work enough any way. A thorough grape grower should always rather be ahead of his work, than pushed by it, and the slovens, who always have time enough, and spend the fine winter days idling around the stove, or worse still, in bar rooms and country stores, spinning yarns for the edification of the idlers, will find in spring that their work is driving them, and that they cannot make up for lost time.

If you have a cellar full of wine, you will find plenty to do even in bad days, when you can do nothing out of doors, as this is pre-eminently the

month for the first racking. See article on management of wines in November No.

Every vinter should have an outdoor cellar, kept rather moist, for his grape-wood, roots, etc. It can be easily made by digging a hole, setting posts inside, with boards behind them to make the walls, then put rafters on the posts, cover them with boards, and throw ground over the whole. With very slight cost, you will thus have an excellent place to keep your grape wood fresh. Prune the vines in fair weather, bundle up the trimmings, and store in your cellar; when bad weather sets in, you can trim and but them into cuttings, and always have work on hand. By thus taking advantage of every day and hour, much work can be done in the winter which is generally done in the spring, you need not be driven by your labor, and will feel all the easier and happier for it.

Clearing can also be made, and ground got ready for spring planting. Those who have not tried it do not know how the diligent workman can enjoy the winter evenings around the family hearthstone, when a well spent day lies behind him. He may be tired, but it will be a healthy exercise, and his rest will seem all the sweeter to him, because he knows he has justly earned it.

Correspondence of the Detroit Free Press.

GRAPE-GROWING IN THE VICINITY OF MONROE.

A LARGE NUMBER OF ACRES UNDER CULTIVATION—THE LARGE AND INCREASING IMPORTANCE OF THE BUSINESS.

MONROE, Oct. 24.

There are few people in the State, if indeed in our own county, who have any adequate idea of the extent and importance to which the cultivation of grapes and the manufacture of wine has attained in and around Monroe. Although yet in its infancy, the business has assumed no mean proportions, and it is no more than a reasonable prediction to say that it must within a few years overshadow in volume that of the Lake Islands, whose products have become so widely known, while the qualities of fruit and wine already produced here are acknowledged to be without superiors in any part of the West, except California alone.

Seven years ago last spring the first vines were set, and an experimental vineyard started by J. M. Sterling, Esq., who subsequently obtained a large tract of land and organized the Point au Peau Wine Company. This experiment of seven years ago consisted of only five hundred roots, one-half being Isbellas and one-half Concord. But one year was necessary to show that the Isbellas were a failure and the Concords a decided success. This little venture formed the nucleus of the present flourishing and profitable vineyard, and the immense business of which I propose to give you a short sketch. Mr. C. Bruckner and Jos. Sedlaczek were among the first

to appreciate the advantages offered by our soil and climate for grape culture, and gave the subject much study and entered upon a variety of experiments. Gradually a large number of others followed in the wake of these gentlemen, with more or less extensive preparations to become vinters. Along the borders of the lake, bays and streams, the soil seems peculiarly adapted to the business, and the atmosphere equally as favorable as that of the islands. The varieties which are most largely cultivated are the Concords, Delawares and Catawbas respectively, the former largely predominating, owing to the prolific yield and hardy nature of the vines, the early ripening of the fruit and the greater adaptation to wine making.

The Point au Peau Wine Company own about fourteen acres of land at the point from which it derives its name, (being a point of land extending into the lake a short distance,) about six miles north of the city, of which about twelve acres are occupied by bearing vines; these are of two, three, four, five, six and seven years of age, yielding very largely fruit of excellent quality, specimens of which, as well as of their wine, were on exhibition at the State Fair, and received several premiums. This year about eighty-six thousand pounds (forty-three tons!) of grapes were gathered, of the following varieties:

six thousand pounds Delawares, ten thousand pounds Catawbas, seventy thousand pounds Concords. Most of this will be converted into wine, yielding probably about four thousand gallons of wine. The company is composed of the following gentlemen: S. P. Williams, of Lima, Ind.; J. M. Sterling, Caleb Ives, W. A. Noble, of Monroe.

The grounds of S. G. Clark are a short distance from the river, about a mile below the city, and comprise five acres. This season over thirty thousand pounds, or fifteen tons, of grapes were gathered. A portion of these—say about five thousand pounds—was sold, and the remainder was made into wine, yielding about nine hundred gallons—all Concord.

Next to the Point au Peau Company the most extensive vineyard is owned by Messrs. Diedrich & Briesacher, of Detroit, which is located on Plum Creek, about a mile south of the city, consisting of from twelve to thirteen acres of vines, about two-thirds of which are but two years old, and are of the Concord, Delaware and Catawba varieties. They make this year four thousand gallons of wine, about eight hundred of which is Catawba.

Adjoining this are the vineyards of Christopher Bruckner, Esq., who has here three acres of Concords and Delawares, on Tamarack Creek five acres, and on Snake Island four acres, the latter being largely of Catawbas and Delawares—in all about six thousand vines. As the grapes have not all been picked I am unable to give the production this year, except that of the Plum Creek vineyard, which was

5,500 pounds. Many of Mr. B.'s grapes are of superior growth and flavor, owing to the care with which they have been cultivated.

Joseph Sedlacek has a vineyard of six acres finely located in the city, comprising about 5,500 vines, mainly Concord, Delaware and Catawba, besides which he has these varieties: Martha, (white,) Rogers, Perkins, Caroline, Norton's, Louisiana, Iona, &c. These are from one to six years old, many of the vines not yet bearing. He has made this year two thousand gallons of wine—of Concord and Delaware.

John M. Reisig & Brother have four acres planted with Concord and Delaware vines, but a small portion of which are more than two years old, and a portion are five years old. They sold about three hundred pounds this year. Mr. Reisig is one of our Commissioners of Emigration to Germany, and it is presumed that in his visits to the Fatherland, he has picked up valuable information concerning grape-growing and wine making on the Rhine.

Joseph and Anthony Weier have on Plum Creek, one mile south of the city, about ten acres under cultivation, from one to three years old, mostly Concords, and growing finely. They made this year 1,500 gallons of wine.

John and Michael Goetler have about five acres of vines, two to four years old, this year yielding about 4,000 pounds of grapes and 600 gallons of wine.

Destler & Munch, Christian Frost, Christian Grunning, George R. Hurd and others have about ten acres of

vines, from which ten thousand pounds of grapes and twelve hundred gallons of wine were made this year, many of the vines being but one year old.

J. M. Sterling has a vineyard at the dock, of three acres, half of which are in full bearing, principally Concords. From these over 800 gallons of wine were made, besides a great many grapes otherwise disposed of. The average is about fourteen pounds of grapes to the gallon of juice. A large number of new vineyards were started this year, and will soon swell the yield of grapes in the county to a much larger figure. These are owned as follows: S. P. Williams, three acres; I. Van Wormer, three acres; E. Phillips, two acres; Morrison Paudling, five acres. Besides these there are a number of smaller ones, all bearing more or less, of which no statistics have been obtained; many cultivating the fancy varieties to the number of eighteen or twenty.

In regard to the manufacture of wine, there are course but two methods, which are made as suits the tastes and judgment of the vintner. Should he desire to make a white wine, the juice is pressed directly from the grape without previously "mashing" the pulp and skin, which produces a delicately tinted wine, but not so strong as that by the other process, which consists in grinding the grapes to a pumice and allowing them to thus remain until fermentation ensues, which it does in from four to eight days, the length of time depending altogether upon the weather, the warmer the weather of course the shorter the time required. This is then pressed out and stored in five

hundred gallon casks, in the large cellar, having a capacity for many thousand gallons of wine. As they are nearly all alike, a description of one of the cellars of the Point au Peau Wine Co. will suffice: They are built of solid stone, forty feet long by twenty-two wide, nineteen feet walls with thick lining, between these walls an air chamber of about six inches intervening, insuring against dampness. The floor is formed, also, with a view to exclude all dampness, having first a thick layer of cement formed of waterlime and hay thoroughly mixed, upon which rests a flooring of one and a-half inch pine plank laid upon strong timbers and joists. This forms a strong, dry and roomy vault for the storage of the wine, but the rapid development of the business will soon require many more of them. Aside from the magnificent profits of the investment, the culture of grapes is certainly one of the most agreeable of all out door pursuits. The ground once prepared and the roots set, the cultivation of them becomes a pleasure, and when the big bunches of luscious fruit gradually deepens in color, as they ripen, and acquire the rich purple and soft red tinge, the patient watching and careful training and pruning seem to be amply repaid.

A summary shows that though the average age of the vines is a little less than four years, and a large proportion being two to three years, the yield this season has been over 250,000 pounds of grapes and 18,000 gallons of wine.

There are now planted upwards of one hundred acres of vines, twenty or thirty of which were set last spring;

and in another year their yield will largely swell the figures given above. Preparations are being made also to put a still larger area of land into grapes by parties named above, and by others who have not yet entered

into the business. So that the remark previously made, that Monroe county must soon stand in the foremost rank as a grape producing district, will be fully sustained.

KEUKA.

THE COMING MAN WILL DRINK WINE; OR, COMMON SENSE vs. PROHIBITIVE LAWS—VII.

Did I possess the science and the genius of an Archimedes, a LaPlace, or an August Delmar, the logic of my figures would soon demonstrate the truth of my position. In the absence of such valuable qualities, I will simply take the trouble to cross you over the ocean—in imagination only, of course—and at once point to France and Germany as examples worthy, in some respects, of imitation. The wonderful growth of her potato-sugar factories, unrestricted by government, which Germany has witnessed within the last fifteen years, is proof evident that the wine production of that country has been in great demand, profitably and largely extended under the fostering care of clear-sighted and prudent rulers. France—poor, unhappy France!—the beloved cradle of my youth, for whom my warmest wish to Heaven is sent—France has seen within the same period, the number of her vineyards increase from five to eight millions of acres—over a sixteenth part of all the land capable of cultivation—producing for each head of her population about forty gallons of wine per year, the gross amount in cash being over \$300,000,000 in gold. This industry gives employment to more than six million of men,

women and children, nearly two million merchants, agents, &c. Who will say that these advantages do not vastly overbalance the noise made by a few inebriates; and, morally speaking, has France, through this increase in the consumption of her wines, grown worse and more disorderly than the United States? I call to witness every candid, disinterested, unprejudiced, liberal-minded American, who may have visited that Empire, to declare whether, whilst there, he detected more turbulent and rowdy drunkenness than in this country? We all know—I mean those who can know something—that France, as a whole, whether beer, cider or wine be the usual beverage, is a sober country, whose government takes special care to encourage a business so productive of good results to the nation. In it no Legislature, no Congress, affects or attempts to legislate against the natural right of man to eat or to drink, but the civil authorities carefully regulate the police, and, in earnest, do take care that the quiet and order of the citizens be not wantonly disturbed; that their food and drinks be not over adulterated. In our ignorance of some good things, were we a people prone to imitation, such a course might probably be fol-

lowed here with similar advantages to our people, but this will hardly ever suit those restless minds infatuated with the aberration of total abstinence.

As a people progresses in numbers and civilization, its government has new duties to perform. This will apply to our country, and laws which might have been endurable thirty years ago—when we had but limited orchards, no vineyards, no hop plantations, nothing to brag about—may be worthless and tyrannical to-day. No one who is incapable of grasping this truth is fit to lead or direct public opinion.

The real problem now sought to be solved, I take it, is not to strike at the root of one of the most important

branches of our agriculture and of our commerce, by laws equivalent to a complete prohibition of the manufacture and sale of any kind of beverages containing more or less alcohol, but to so regulate their sale: to so prevent their poisonous adulterations; to so punish all offenders, saloon-keepers and drunkards, in such a way as to materially diminish their numbers. To seek for more is to seek for the impossible; perfection is not of this world.

I shall in my next examine what gave rise to the notions of temperance and total abstinence, and what good purposes they serve.

DR. AMPELOS.

GOLDEN HILL'S VINEYARD,
Nauvoo, Illinois.

AIR TREATMENT AGAIN.

NEW YORK, Nov. 5th, 1870.

GEO. HUSMANN, Esq., Bluffton, Mo.:

Dear Sir—Dr. F. W. Assmann, of Chester, informed me of his results as early as end of August. I communicated that part of his letter to Mr. H. N. Jarchow, of the *Deutsch-American Farmer Zeitung*, who published it Oct. 15th, with a letter of an importer of Rhine wine, in relation to his success to restore, by air treatment, some sickly wine. I enclose this part of the said paper. Mr. E. O. Thompson, of Cincinnati, O., who stated he would make this season some 50,000 gallons by this process, writes me of 29th ult. as follows: "I complied with your request of Oct. 8th by sending samples of my air-treated wine to your agent at Atlanta (Mr. A. C. Cook, of Covington, Ga., for exhibition at the Georgia State

Fair)—some only 8 (?) days from the press, yet it was clear, and all fermentation over. I am now selling this fall's vintage in my wine-house, and it passes for one year-old wine—good judges have been deceived by it," &c., &c. According to prior information, Mr. T. had inaugurated the introduction of air treatment at his vineyard about Sept. 10th or 12th, and Mr. Cook informs me that he received from Mr. T. a letter with the highest encomiums on the process, and its obvious advantages to wine makers. Mr. Cook carried off over half of the wine premiums of his fair by wines air-treated, and one special premium in an essay for the best method of making and preserving wine. He had also made Sorghum syrup by air treatment, and says it was admired by every one for its superior clear and

pure taste. Sometime ago, when he had made it, he had communicated to me his surprise that the crude juice was literally covered with wasps, hornets, &c., while hardly an insect would touch the purified juice. The cause is quite obvious: the insects don't find the albumen in it that is necessary for their sustenance; white refined sugar contains none of the microscopic, rough-looking insects that live by millions in the crude sugars. My theory to withdraw the nourishment from the micro-crevices applies here with equal force.

Yesterday I received from R. A. Blankenhorn, Carlsruhe, an extract from Part IV *Annalen du Penologie*, on "the favorable effect of increased access of air to must in the progress of its fermentation." From this it is certain that air-treatment spreads rapidly amongst the German vintners. He says, "The air-treatment has already become a fact so fixed in wine cellars of Upper Baden that no must not air-treated is allowed to go into the cask."

By the failure of my customers for air-treatment to pay up promptly, I am prevented from visiting the Southern sugar States as I contemplated to introduce my process in the sugar plantations, being positive of increasing the proceeds of the planters at least 25 per cent. by the prevention of all souring and fermentation by enabling them to have the juice rapidly housed and out of the cane, and to finish the work as the other machinery of the establishment permits. Also by avoiding all molasses (that will sour and ferment) but producing only fine sugar, and unsouring syrups of superior flavor; and, by the greater simplification of all processes of their sugar houses, to utilize

by fermentation and distillation the immense amount of scums and spent cane, now to a large extent thrown away for want of time, ability and facility to work it; while the product of such distillation is incomparably superior to the abominable spirit now generally produced from the sugar leavings.

[Translated from the *Farmer Zeitung*.]

On the 22d of this month (Aug.), a week ago yesterday, I commenced the air treatment of my Delaware must. Friday evening fermentation was completed, and the must no longer sweet. That must showed 90 degrees (Oechsles scale), and I shall rack it to-morrow (31 August) into another cask. This evening I think my Concord, which was subjected to the treatment last Friday, will be finished. Several of the more extensive grape growers of Illinois were with me within the last three months, and they also intend to try the process after trying the results of the experiments made by me last year. The results of this season's experiments by several others will, I hope, practically demonstrate the great benefits of air treatment beyond a doubt, and it will be a pleasure to me if I can assist in furthering the distribution of the process. At a meeting of the grape growers of this vicinity, which took place yesterday, I reported on the favorable results of air treatment, and I do not doubt that most of them will follow my example next year, especially if they can see and try samples of it next November, while their wines are yet unfinished. I ought to remark that fermentation took place in a temperature of 80 to 90 degrees; that some water and sugar had been added to the must, and that I only experi-

mented on quantities of from 35 to 36 gallons. But I am convinced that it can be equally well applied to large quantities, in the same temperature, and intend to convince myself of it when I gather my principal crop, in the course of a few weeks. I am, therefore, fully convinced of the vast importance of air treatment, and it gives me great pleasure to be able to show to my St. Louis friends, who doubted its utility, that it has been fully tested and found successful by me.

Yours truly,

DR. F. W. ASSMANN,
Chester, Ill.

In regard to the clearing of turbid wines by air treatment, a New York wine dealer writes me as follows:

"R. D'HEUREUSE, Esq. :

"*Dear Sir*—According to your directions, we have used your air treat-

ment for the restoration of Rhenish wine which was cloudy and had a disagreeable taste, and which had been experimented on by other methods, but remainedropy. A few days after the application of air treatment the wine became perfectly clear, and had the fresh, agreeable taste of good wine of its kind. We can therefore recommend your method as superior to any other we know.

G. OCHSNER & Co.

It seems, therefore, that every trial made with my air treatment is but another proof of the superiority of the process.

Yours truly,

R. D'HEUREUSE.

[We give this interesting communication in full, and hope to see the process thoroughly tried every where, as we have no doubt of its value.—ED.]

CAN WINE BE AERIFIED WITH IMPUNITY?

I have patiently been waiting for the recorded experience of brother vintners upon this important subject, but the arduous labors attendant upon an abundant crop have no doubt delayed those who might desire to answer. Meanwhile, from the remarks of Mr. George Husmann, and the many letters which I have received, I am satisfied that my position has been misunderstood, and has, with some, raised a prejudice against the new process known as "air treatment," a result which I had not foreseen when I penned my query, the whole of my article being based upon and only referring to the old and so far usual way of racking wines from one cask

to another with faucets, in which case, when overdoing the job through roses of watering pots, acidification is almost certain. This being the case, I deem a further explanation of my views not only necessary but just toward "Air Treatment" and its worthy discoverer.

I have no experience with Mr. D'Heureuse's process, but from the practical knowledge I have of the necessary presence of oxygen in the *must*, to develop a healthy fermentation, I am disposed to grant all that is claimed for it; experience will teach how far it can be trusted beyond the *must*. I further believe that with care it will prove likewise beneficial to wines that have undergone but an

imperfect fermentation; why so I cannot say, except it be in the fact that instead of the wine constantly traveling through air, from cask to cask, with a positive loss of a preserving element—the carbonic acid gas—the action is reversed, the wine remains quiet in the cask, the air is introduced suddenly, promptly and briefly, with a supposable limited deperdition of

the preserving element, besides reducing the many rackings heretofore considered necessary to perfect a wine before bottling. All of which I hope may prove in time positive advantages difficult to deny. Meanwhile experience must become our teacher.

EMIL BAXTER.

GOLDEN HILLS VINEYARD, Nauvoo, Ill.

TO OUR READERS.

"I had rather lose my eye-teeth than have the GRAPE CULTURIST stop, and will propose that you allow every subscriber who wishes a few lines of advertisement, and charge him five or ten dollars a year. Say you add twenty pages more to the CULTURIST, on this there would be one thousand lines, and five to a subscriber, for five dollars, would add one thousand dollars to your pocket. The additional twenty pages could not add much to the cost. Yours truly,

"GEO. M. DEWEY.

"KEYTESVILLE, Mo."

[The above is but one of many similar communications, and we can assure our friends that they are very gratifying to us, as they show that our labors and those of our contributors are duly appreciated by the grape growers, and that they, as a class, need a medium for the interchange of their experience and thoughts. But although gratifying to our feelings as such expressions must be, they still "do not make the pot boil," as the old saying is, and we find ourselves at the close of the year, not alone without remuneration for our labors, but

absolutely out of pocket by the enterprise. We think we may say, without self laudation, that we have labored earnestly and hard for the good of the cause; we have tried to give all we could collect, with strict impartiality, from all parts of the country, that could be of benefit to our readers. We have not filled half of our pages with paltry novels, sentimental poetry or flat jokes, as we see in some of our so-called agricultural papers, but tried to give our readers the full value of their money in actual experience and useful facts, referring only to our legitimate subject, the culture of the grape and the making of wine. We have stolen many an hour from sleep, and often racked an aching brain for the sake of the cause, and, as we hope, for the benefit of our readers; and we have done it gladly and willingly, as a labor of love. But we cannot afford to lose more money than we have already done, and must, with this number, say "good bye" to our readers, unless they themselves step in and support an institution which has been started for their benefit. We have thought long and anxiously upon

a plan by which this could be done, for we confess we feel a father's weakness towards our offspring, perhaps all the more so as it has cost us so dearly; and we would not like to give up, and have hit upon a plan by which we think it can be kept up, if we find enough willing to lend a helping hand. It is as follows:

To every one who sends us his subscription for 1871 with five dollars additional, we will send the GRAPE CULTURIST for that year, and a certificate of stock in the enterprise for that amount, or allow him, if he prefers, a short advertisement in a special double column we shall open for that purpose, the advertisement not to exceed five lines, or a line for each additional dollar, at his option, something like the plan proposed by friend Dewey. As soon as two hundred shares are thus taken, or the amount of them sent in, the first number of Vol. 3 will be issued. The amount may be sent to us here, and should the requisite number of shares not be subscribed by the 15th of February the money will be promptly returned, as we shall then

know that there is not enough of interest felt in the continuance of the journal to make it desirable. We will take one hundred shares ourself as our share in the enterprise; and should it continue, the profits, if any, will be divided among the stockholders at the end of the year. We have now, we think, about twelve hundred paying subscribers, and the cost of the journal per year is about two thousand dollars, so that we may hope the paper will pay for itself the ensuing year, and perhaps even yield a dividend.

It now remains for you, brother vintners, to say whether the GRAPE CULTURIST shall continue to visit you. Let us hear from you at the earliest date, so that we can go to press as soon as possible, and that our January number may not be far behind its time. We still have confidence that two hundred of our subscribers can be found who will risk five dollars each to keep it alive after we have sacrificed so much and labored so long to establish it.—ED.]

THE PREMIUMS AWARDED TO WINES AND GRAPES AT THE LAST ST. LOUIS FAIR.

ST. LOUIS, Nov. 15th, 1870.

Mr. GEORGE HUSMANN:

Dear Sir:—As requested in your letter of the 12th inst., I herewith send awards of premiums made at our late fair made upon wines and grapes:

Best collection of Native Wine, diploma and \$20, to Bush & Co.—

Second best, \$10, to Buskett, Provinces & Co., St. Louis.

Best Sparkling Catawba, diploma and \$20, to American Wine Co.— Second best, \$10, to Pleasant Valley Wine Co., exhibited by Bush & Co.

Best Sparkling Concord, diploma and \$20, to American Wine Co.

Best Sparkling Wine of any grape, diploma and \$20, to American Wine

Co., on Delaware—Second best, to Pleasant Valley Wine Co.

Best Still Catawba, diploma and \$20, to John T. Walter, Baden P. O., St. Louis Co., Mo.—Second best, \$10, to Bush & Co.

Best Concord, (red) diploma and \$20, to Poeschel & Scherer, Hermann, Mo.—Second best, \$10, to Fred Will, Hopewell Furnace, Mo.

Best Concord, (white) \$10, to C. D. Yaeger, Webster, St. Louis Co., Mo.

Best Norton's Virginia, diploma and \$20, Dr. C. W. Spalding, St. Louis—Second best, \$10, Bush & Co.

Best Herbemont, diploma and \$20, Bush & Co.—Second best, \$10, Poeschel & Scherer, Hermann, Mo.

Best Clinton, diploma and \$20, to H. Clagett, Gray's Summit—Second best, \$10, same.

Red Wine, any other grape, \$10, to Poeschel & Scherer. (Ives' Seedling and Cynthiana). Second best, \$5, to Bush & Co.

White Wine, any grape, \$10, to Buskett, Provines & Co.—Second best, \$5, to Poeschel & Scherer, Hermann.

Grapes, samples from one-half acre vineyards, \$20, to J. J. Kelley, Webster, Mo.—Second best, \$10, to E. R. Mason.

Catawba, six bunches, \$5, to Bush & Co.

Concord, six bunches, \$5, to Mrs. Beardsley, St. Louis county.

Virginia Seedling, six bunches, \$5, to Bush & Co.

Grapes, six bunches, any variety, Mrs. Beardsley.

Grapes, collection, six bunches of each, \$20, to Bush & Co.

Grapes, foreign hot-house, \$5, Alexander Mitchell, Milwaukee, Wis.

Grapes, collection of field, \$5, to Bush & Co.

Grapes, largest and best bunches on one vine, \$10, Bush & Co.

Any other information required, will afford me pleasure to furnish at any time.

Yours truly,

G. O. KALB.

[Mr. Kalb will please accept our thanks for so promptly and kindly complying with our request.—Ed.]

For the GRAPE CULTURIST.

KEEPING OF GRAPES FOR WINTER.

FRIEND HUSMANN:

As a grape is always good to my taste, as long as it is not spoiled, whether in season or out, I undertook last fall to put up some to see how long they could be kept. Thus far my success has not been what I expected. Ives, which was recommended as a good keeper, has shriveled up, and is to my taste more foxy than when gathered. The skin seems thicker

and tougher. The quality is hardly good enough to make it worth keeping, even if easily kept. Rentz, which seemed so plump and solid, gave way first, Telegraph next, it being too early for a keeping grape. The Concord, which in my opinion could not be kept over a month after gathering, have done the best, a sample of which accompanies this. My mode of keeping them has been in

boxes, three layers deep, with paper between the layers; overhauling them every week or ten days, and taking out all spoiled berries, and putting fresh paper where it had become damp.

My grapes were gathered after all the wine was made, handled with the utmost care, and carried a mile to the house.

There was one mistake in the operation I think. Those for keeping should have been gathered before so

very ripe. But even with the only partial success this time we will try it again if we live and have grapes next year.

S. MILLER.

NOVEMBER 19, 1870.

[The "sample" was very good indeed, and much relished by us. We may add, that Concord has kept well with us, but Norton best of all. It can easily be kept for family use until midwinter.—EDITOR.]

UNDERHILL'S TWO HYBRIDS, CROTON AND SENASQUA.

FRIEND HUSMANN:

As the above two new grapes are favorably spoken of in the East, you may wish to know how they do here thus far. Both have grown well this year, without a sign of disease; have ripened their wood to the very tips, which is a pretty sure indication of their proving hardy here.

At one time I thought the Croton was a pure foreign, but since more advanced growth the true hybrid is perceptible. The small laterals have ripened their wood to the ends.

They may be quite a valuable ac-

quisition to our already large list of good grapes.

Of the fruit I have not seen or eaten yet, but from good authority we hear them quoted as among the very best. Yours truly, S. MILLER.

[We have seen these two new varieties ourselves at friend Miller's, and can confirm all he says about them. We should, however, not forget that *one season* is hardly a test for *any* variety, and that the last was a very favorable one. Let us try them a *leettle* longer, and then report again.—EDITOR.]

TAKE NOTICE.

Those of our subscribers who are still in arrears with their subscription will please remit at once, as we

wish to close the books for the year. Their bills will be enclosed in this number.

REPORTS ON GRAPES.

FRIEND HUSMANN:

October number of *GRAPE CULTURIST* before me—have run a glance over it—generally good—but if your correspondents are none of them better posted than the one from Cleveland, there is no reliance to be placed on their letters. We have thousands of acres of Catawbas here, and not a rotten grape this year to speak of—all ripening beautifully, surpassing its best years. Isabellas were never better, and the best price we can get wholesale is four cents per pound, while Catawbas sell at five. Of varieties grown around Cleveland, I am sure everything is being tested that is known; for many vineyards that I have visited have thirty to forty sorts, with which a trial is made, and my grounds have shown this year over eighty varieties for comparison, and have been visited and examined by hundreds of people.

It is true that as yet the leading vineyards are mostly made of Catawba, Concord, and Delaware, but there are acres of Iowa, Ives, Clinton, and hundreds of vines of Martha, the Rogers, etc., etc.

Thank you for your suggestion to our people to "come out West," but we are just in the right place for grape-growing, and some of us know how to do it.

F. R. ELLIOTT.

[We are glad our Cleveland correspondent has brought friend Elliott out, and we would suggest that they "fight it out on that line." Whose report is the correct one? We hope friend Elliott is right, for we want

grape culture to prosper, and the hearts of its votaries made glad by abundant crops, wherever it is followed. If our friends at Cleveland are content with their location, and think they "know just how to do it," please let them diffuse some of that knowledge through the *GRAPE CULTURIST*. It is just what we are trying to learn, and to impart to our readers. Let the knowing ones be a little more liberal with their information.—ED.]

KEYTESVILLE, Mo., Nov. 1, 1870.

MR. EDITOR:

Dear Sir :—There was no rot or mildew on the grapes this season. I have some thirty varieties bearing, all of which did well except the Herbeumont, which had all the buds killed by the freeze in April. I had the misfortune to take up the vines the day before the freeze. I trimmed my vines all through the winter, from November till late in April. The time of trimming made no appreciable difference in the crop.

The Delawares were three-fourths destroyed by birds. Taylor a full crop. One vine had 24 pounds of pretty well-ripened grapes; must 90. Iona overcropped; must 90.

Concord, one-fourth of buds killed by the April freeze; one-fourth destroyed by birds and cracking: 2,000 pounds were sold and given away, yet from 600 vines I made 400 gallons of wine.

Norton, a good crop, considering the cultivation they received, for it was simply one plowing, as I under-

took to run a farm as well as a vineyard. A few of the Nortons received good cultivation and three pinchings, the others only one. The bunches on the few were the most compact; but the less pinched had the most and *best* wood for next crop. From 1200 vines—sold and gave away 1500 pounds, and made 850 gallons wine. I probably lost one or two hundred gallons by letting the grapes hang till late in October.

Finished gathering on the 27th.

The must stood 114° on Oechsle's scale.

I consider a little good wine preferable to a good deal poor wine.

On the whole I am satisfied with the year's operations, inasmuch as I am but little money out for running the vineyard—I paid \$7 for plowing it, and my two daughters did the tying and pinching, while I made tobacco. While some may think this very unladylike business, I can say that my daughters are as good at thumbing the piano as pinching grapes. God's sun and air are as essential to human life as plant life. Want of out-door exercise is the cause of three-fourths of the female complaints in the civilized world. No doubt Noah's daughters worked in the vineyard and lived as long as they wanted to.

One thing I am satisfied of in grape-growing beyond doubt, and that is to pinch just beyond the second bunch of grapes as soon as it is *possible* to do so. As regards farther pinching, I should be guided by circumstances. If the vine has on a light crop, pinch two or three times. I keep a stove in my cellar, and the thermometer at about 80°. I am trying 160 gallons

white Concord, made by pressing immediately after meshing, and adding a quarter pound of sugar to gallon must—no water. Will report the result. I pinched my Concords as you recommended, and have sent some of the grapes to a neighboring market, where they sold at from 15 to 25 cents per pound, while there were plenty in the market at 6 and 8 cents. Three things are essential in the vineyard business, to wit: *Very* early pinching, clean casks, and high temperature in fermenting.

The cuttings you sent me did well. I grafted the Hermann and Cynthia into Concord roots; they made three or four canes each, that run all over the top of the trellis.

I have a good slovenly man's vineyard; and I will wager a five-gallon keg that I made more wine for the amount of labor than any man in the State.

GEO. M. DEWEY.

[A very interesting report, and to the point. We rejoice to see that at least some of our fair readers took our article "Women in the Vineyard" to heart, and followed it practically. But while we admit that you did well with *little* labor, we still contend that you would have been well paid for working thoroughly.]—ED.

—
COLUMBIA, Lancaster co., Pa.

Possibly a brief "report on grapes" from Lancaster county, Pa., may not be unacceptable. So, I may say that grapes generally have done better in this section, this season of 1870, than for a number of years previous. A few weeks ago, I made a short trip among some of our grape growers, and, though the grapes were about all harvested, I

found the owners well satisfied with their crops. The vineyard of Mr. John Huber, near Litiz, was first visited; then Mr. R. Weaver's, Mr. Miller's, and Mr. Wenger's; each one of an acre to two or three acres in extent. The vines all looked healthy, and had made an abundance of ripe wood. The varieties most depended on, are the Concord and Clinton. The Martha is being largely planted also, as a sure and safe investment. The Catawba and Isabella are rarely planted, and where there are any of these old kinds they rarely come to perfection. Many of the newer varieties are planted by all in a small way, to test their merits. Numbers of Roger's Hybrids are being tested, and are generally very promising, especially from the health and vigor of the plants, the showy appearance of the large berries, as well as the good quality of the fruit, as table grapes. As to my own collection, I may remark, that of some twenty or more of Roger's—(I still have them by numbers)—his Nos. 3, 4, 9, 19, 28, 41, 43 and 44, are my favorites. No. 1 is too late for our section, except in protected situations; did it only ripen earlier, I would consider it best of all. The plant is more healthy, and less injured by mildew, or insects, than any of Rogers. But as Mr. Roger is well known to have been the pioneer in crossing, or hybridizing, the grape, giving an impulse to the production of new varieties, other experimenters are following in his tracks, and Mr. St. Underhill, of Croton Landing, N. Y., has produced some cross-bred varieties that are, I think, superior to any grapes yet produced in America that have come under our notice.

His "Croton" is a greenish white grape, large bunch, with medium-sized berries; and, if my judgment is worth anything, I consider it equal in quality to a Golden Chasselas. Another, the Senasqua (black), I have not yet fruited, but a friend writes me "that he prefers it even to the Croton," it being so meaty."

These new crosses of Mr. Underhill, too, are very strong growers, and appear to be quite healthy. Of Dr. Wyllie's crosses of S. C., I have only fruited one. This is a red grape, berries size of Concord, bunch medium; a superior grape, and the plant vigorous and about as free from mildew as the generality of grapes.

A box containing eighteen varieties of hybrids, was sent me by Mr. G. Haskell, of Ipswich, Mass., selected from several hundred of his cross-breds, for my opinion of their merits. They were slightly damaged by being on the way longer than they should have been: but, in company with Mr. J. Huber and R. Weaver, we gave them a fair overhauling, and fully agreed that many of these new contestants for the favor of grapeists are well worthy the attention of grape growers. Mr. Haskell's location is near the sea coast, and, I should suppose, rather unfavorable to the grape; yet he is experimenting largely, "having now, October 3d, 1870, 211 grapes ripening, which have been crossed eighteen different ways," besides his five or six hundred of previous crossing. Certainly, here is a chance of something *good* resulting. From these many experiments, may we not confidently hope for grapes, equal to any in foreign climes? I think so.

Respectfully, J. B. GARBER.

Oswego, Oregon, October 27, 1870.

EDITOR GRAPE CULTURIST:

I promised to let you know as to the success of the grape this year in Oregon, and now as the season is about over I fulfill my promise.

Leaving out one or two kinds, which were injured by the rains during the blooming season, I might sum the whole matter up by saying that grape growing has been a splendid success this season. All kinds have been perfectly healthy, as usual, have borne well and ripened their fruit, but not as early as last year. Among native kinds Delaware, Allen's Hybrid and Hartford ripened about together; Early Black July (foreign) about a week earlier; Creveling, Isabella and Royal Muscadine (foreign) about the same time, and a week later than Delaware; Iona, Concord, Diana, Herbeumont, and Black Hamburg, about three weeks later; Chasselas Violet, Chasselas Musque, Bar Sur Aube White Green, and Miller's Burgundy (all foreign), ripen pretty much together, and a week or so later than Royal Muscadine; Chasselas Rose, Black Malrasia, and Black Spanish, ripen two or three weeks later than Black Hamburg.

At our late fair there was a fine display of grapes. The first premium for the best variety was given to the Red Traminer. This grape is a great bearer; makes large bunches of medium-sized berries; is nearly the color of the Delaware, and ripens almost as early. It is a most delicious grape. We have not yet had frost enough to kill the foliage, and young vines are still growing. The weather is still very fine, our fall rains not hav-

ing yet set in. The season has been unusually hot and dry, and everybody is looking and longing for the "Oregon Mists."

A. R. SHIPLEY.

"GRAPES are now so abundant in some parts of the West that they are sold 'by the ton.'" The above two lines are going the rounds of the Eastern papers. What contracted ideas the press and people of the East must have relative to the grape culture! For private table supply we do use the term pounds, when purchasing grapes. But talk pounds to a grape grower, or wine maker, and you would be laughed at.

The American Express Company has shipped from this point two hundred and fifty tons of grapes this season, and the season will not end for a month yet. The shipment from that office this season will touch five hundred tons. The Dover Bay Company have marketed over sixty tons this year. Stair & Co., in their home trade, sell over a ton a day. Duroy, one of our wine makers, will press over one hundred tons, and Leick, another wine maker, will *squeeze* out nearly three hundred and fifty tons.

We stepped into Mathivet's wine house, where the floors were covered with the most luscious catawbas, and where he was grinding at the rate of half a ton each hour. His consumption of grapes will only be limited by his supply of casks.

Chandler, another dealer, will handle forty tons of grapes this season. From an estimate made, after due examination by one competent to judge, we find the grape product from Avon Point, eighteen miles West, to Euclid

Creek, eight miles East—being a mere strip of land in width—will produce at least one thousand tons of grapes.

These are but street items of our grape trade, picked up at random. The Sandusky *Register* speaks of 68 tons of grapes brought on a steamer from the Peninsula, most of them for Leick of this city. People who buy grapes by the few pounds, or by the market basket, should step into a press-room and see the Catawbas poured into the hoppers bushel after bushel.

The grapes, this year, are so rich that their product has *overrun* all calculations as to casks, and the wine makers are short of barrels and hogsheads. The grapes are uncommonly juicy, and if the vintage of '70 is not the best for years the fruit will not be the fault.

[We clip the above from the Cleveland *Herald*, of October 28, and wish our brethren of the Lake Shore joy of their splendid crop.]—ED.

GRAPE EXHIBITION IN NEW YORK.

As we have no Horticultural Society in New York city, B. K. Bliss & Son, 23 Park Place, have run a private society on their own account. In June last they held a strawberry exhibition, which was a great success; and now we have to record a similar report in regard to a grape show held at the same place on September 27-30. Two hundred and fifty dollars were offered in premiums, which had the desired effect, bringing the choicest fruits from all points of the country. The judges made the following report and awards:

NEW YORK, Sept. 28, 1870.

The committee who were selected to examine the grapes on exhibition respectfully submit the following awards, as in their judgment deserving of the premiums offered. In making the awards for the best new native seedlings, the committee wish to state that their merits were decided upon from what they saw of the fruit on the tables,

they knowing nothing of the character or habits of the vines.

CHARLES DOWNING.

A. S. FULLER.

P. T. QUINN.

Native Grapes.—For the best and largest collection of correctly named varieties, four bunches each, \$20, to John Dingwall, Albany, N. Y.; for the second best, \$10, to John Knox, Pittsburg, Pa.

For the best six bunches, Allen's Hybrid, \$3, to Horace Eaton, Boston, Mass.

Best six bunches Catawba, \$3, to H. W. Murtfeldt, Newburg, N. Y.

Best six bunches Canada, \$3, to John H. Ricketts, Newburg, N. Y.

Best six bunches Creveling, \$3, to Horace Eaton.

Best six bunches Croton, \$3, to S. W. Underhill, Croton Point, N. Y.

Best six bunches Clinton, \$3, to E. H. Clark, Newburg, N. Y.

Best six bunches Delaware, \$3, to John H. Ricketts.

Best six bunches Diana, \$3, to John H. Ricketts.

Best six bunches Iona, \$3 to Henry Cornell, Newburg, N. Y.

Best six bunches Isabella, \$3, to Horace Eaton.

Best six bunches Martha, \$3, to G. W. Campbell, Delaware, O.

Best six bunches Mottled, \$3, to G. W. Campbell.

Best six bunches Rebecca, \$3, to John H. Ricketts.

Best six bunches Salem, \$3, to J. W. Helmer.

Best six bunches Senasqua, \$3, to S. W. Underhill.

Best six bunches Walter, \$3, to L. M. Ferris & Son, Poughkeepsie, N. Y.

Best six bunches Wilder, \$3, to Horace Eaton.

Best six bunches Adirondae, \$3, to Horace Eaton.

Best six bunches any other sort, \$3, to John H. Ricketts, for Elsingburgh.

For the best seedling (never before exhibited) white, \$10, to Dr. Weeks; black, \$10, to John H. Ricketts.

Foreign Grapes grown under glass—
For the best three bunches of any black

sort, not a Muscat, \$5, to L. L. Hyatt, New Brunswick, N. J., for Black Prince; second best, \$3, to R. B. Campbell, Mamaroneck, N. Y., for Black Hamburg. Best three bunches of any white sort, not a Muscat, \$5, to L. L. Hyatt, for White Syrian; three bunches of any other sort, \$5, to L. L. Hyatt.

The following is a description of Mr. Rickett's seedling, which received the premium for the best black grape; Bunches large, occasionally shouldered; berries large, slightly oval, nearly black, with slight bloom; flesh tender, breaking somewhat like the foreign sorts, although there is a perceptible toughness near the centre, which shows that there is native blood in the variety. In flavor it is first rate, being sweet, with just sufficient sprightliness to prevent cloying the palate.

The vine, of course, was not exhibited; but we saw it a few weeks since, and it appeared to be a healthy and vigorous grower. The leaves were very large, of good substance, and also healthy. It was raised from the Concord, fertilized by Black Hamburg, and shows the good qualities of both parents.—*Rural New Yorker.*

From the Canada Farmer.

THE GRAPE CROP OF 1870.

From what we have seen and heard during the past few weeks, at the various agricultural fairs held this fall, the year 1870 seems to have proved one of the best and most favorable to grape growing we have ever had in Canada. The unusual excess of heat and sunshine during

August and September caused the grape to commence coloring some two weeks earlier than usual, and the absence of frost till late in October enabled every grower to gather his crop of grapes in a fully ripened condition. At the Clair House vineyard, near Cooksville, the entire crop of

grapes, twenty acres, not only ripened well, but the yield of must was large, and the quality much superior to the average of seasons. Even the Catawba, a grape that rarely gets ripe there, is this year fully ripened.

That grapes can be grown and wine made from them in Canada has been fully demonstrated at Clair House, and with the large outlay incurred and appliances put up, we may expect that an article of first rate excellence will be produced there. An experiment made of stripping the grapes from the stalks previous to being pressed, showed that a much finer,

richer, and more highly colored must could be obtained than under the usual process of pressing grapes and stalks together. As only the best and cleanest grapes are used for wine making, the must from the others being distilled into brandy, there ought to be wines of the highest quality of excellence obtained. The Clinton grape is the one mostly grown, with some Concords, Delawares, Isabellas, and Catawbas, but other kinds are being used as fast as the vines come into bearing, and another year or two will test the merits of some of the new sorts for wine making. J. M.

From the *Journal of Horticulture*.

THE GRAPE EXHIBITION AND TEST AT HAMMONDSPORT, N. Y.

Agreeably to the circular issued by the Pleasant Valley Wine Co., a meeting, numerously attended by grape growers and vintners from different parts of the country, was held at Hammondsport on the 12th of October. The object of the meeting was to test the wine-making qualities of the many different varieties of grapes now grown in our country. Such a test was thought especially desirable in this remarkable season, which will go down in history as by far the most favorable to the grape of any ever yet known. The varieties presented for examination were numerous, embracing almost all those of any repute as wine grapes; and the specimens, in many instances, were of superior character—such, for instance, as the Iona, weighing a pound and two ounces to the bunch.

A special committee to examine the

grapes was appointed, consisting of Hon. Marshall P. Wilder, for New England, Chairman; Hon. John Stanton Gould, of New York, Secretary; Dr. John A. Waider, of Ohio, Chemist; Charles Downing, and Jas. H. Ricketts.

The first day was devoted entirely to the test by the saccharometer, the second to the acidometer—the former showing the quantity of sugar, and the latter the acid contained in the fresh juice. We give below the result of the saccharometer test of some of the varieties, and where one test of the same variety was made, the result given is the highest obtained.

Catawba, 96; Isabella, 84; Diana, 102; Delaware, 115½; Walter, 105; Raritan, 112; Eumelan, 103; Putnam (black), 100; Clinton Seedling (white), 86½; Norton's Virginia, 98; Clinton, 97; Concord, 80; Theodosia (a new

variety), 64; Adirondac. 83; Isabella, 86.

The following is the result of the test for acid, the numbers denoting that the must contains so many one hundred thousandth parts of acid. As with the saccharometer test, when more than one sample was tried, the highest result is given:

Catawba, 775; Isabella, 710; Diana, 675; Iona, 775; Delaware, 560; Walter, 375; Raritan, 560; Eumelan, 400; Putnam, 400; Norton's Virginia, 900; Clinton, 1000; Concord, 550; Theodosia, 1330; Isabella, 500.

The meeting was one of great interest, as well as benefit to the grape-growing community, in obtaining and recording facts in regard to the grape

crop of this remarkable year, which in future time will be of great interest in the history of grape culture. What added much to the pleasure of the occasion was a collation and speeches at the close of the first day, and still more, the presence of the ladies at a collation in the middle of the day.

For this report we are under obligations to the Chairman and Secretary of the Special Committee. The official report of the Secretary will contain, besides the result of the tests, a statement of the soil, exposure, cultivation, distance apart, mode of pruning and training, age of vines, and time of picking, from which it is hoped that useful deductions may be drawn.

FRIEND HUSMANN:

What cheers me most in the November number of the GRAPE CULTURIST, is your report on the *Louisiana*. At the same time, our friend, Sam Miller, writes to me: "I deem the Louisiana perfection itself; it is the quintessence of a serious thing; I never knew its real value, until recently, as a late grape."

I will add, that year by year, and without failure, the Louisiana yields me a full crop of beautiful fruit, makes at the same time a very considerable growth of sound wood, keeps its foliage as well as any of our hardest varieties, and will endure even a higher degree of winter frost than the Herbemont, Cunningham, etc. It did not suffer by the late frost in April last, as the Herbemont did. Yet it

is more tender than the *Labrusca* varieties, and chiefly adapted for the latitude of St. Louis and further south. Its seedlings are altogether hardy and of firmer wood; very likely fit for higher latitudes. I have my Louisiana vines on a spot in my vineyard by no means peculiarly favored. The exposure is a western one, the ground nearly level, consisting of sandy loam, only tolerably rich, receiving some manuring by ashes scattered over.

I am confident, Mr. Editor, your hope "that the Louisiana will make the finest white wine in your cellars," will not be disappointed; it makes precisely that sort of wine which stands highest in the estimation of European *connoisseurs*.

FREDERICK MUENCH.

EDITOR'S LETTER BOX.

EAST BETHLEHEM, PA., Oct. 14th, 1870.
GEO. HUSMANN, Esq.:

Dear Sir—I am very much pleased with your journal. Its teachings are plain, practical, and always to the point—just the paper the grape grower needs. My name shall be upon your list from this time onward, and also my efforts to increase its circulation. Have just closed up my grape crop, making most of them into wine. Have been guided by your book as far as it was practicable to bring its teachings into use in combination with D'Heureuse's Air Treatment. Yes, I am the first to test this discovery in our county, and you may well imagine how anxious I am to know the final result.

Respectfully, &c.,
JOHN H. JENKINS.

[Please let us know about your success with D'Heureuse's Air Treatment.—ED.]

—
LEROY, COFFEY Co., KAS., Oct. 15th, 1870.
MR. GEO. HUSMANN:

Dear Sir—I hereby acknowledge the receipt of the September number of the GRAPE CULTURIST. I think I shall like to read it. I like the way you have of answering questions. The experience of practical men is worth more, on any question, than any amount of theory. Inclosed you will find the inducement to send me the GRAPE CULTURIST for six month's "trial." Please tell me through your paper if it will ever pay to plant grapes on ground rather poor for corn (in dry years, but would grow tolerably good corn with plenty of rain,) without manuring; gentle southern slope,

clay sub-soil, no hard pan. Would manuring after planting (on the surface) answer as well as before planting? Would the grapes be as subject to rot on poor, dry ground, where the vines made but slow growth, as where they grow more thrifty? Is the Hartford Prolific as good a bearer and as hardy with you as the Concord? Will the Clinton stock be as good as any for grafting other kinds on? I had several Concords to bear full this year, the second year from grafting, on Clinton stocks. I have not waxed in grafting the grape. I don't know *why* I should not; I read I should not, but could see no reason. I have not had good success, getting only about 25 per cent. to grow. I grafted some by common eleft, and some by side grafting. Please give us your *new method* of grafting the grape in your next, and tell us why should the grape grafting not be waxed as well as any other. Please publish the time of ripening of different kinds of grapes at Bluffton; it will enable one to plant for the whole season. How will Mary Ann compare with Coneord in size of fruit and growth of vine? Please answer, and oblige.

Yours, truly,

C. C. HOW.

[We guess you are a trne Yankee, by the manifold questions you ask. We will try to answer them as concisely as possible. Questions one, two, and three may be answered together. The soil need not be *rich* for grapes; one of very ordinary fertility, even poor, will do, if stirred and worked deeply and thoroughly, and you need

no manure, either before or after planting. Vines make a more succulent growth on rich soil, and are more subject to rot on it, than on rather poor soil. Hartford is a very abundant bearer, and hardy and healthy everywhere. Clinton is the poorest stock for grafting we know, for two reasons: first, its dissimilarity to other varieties, and, secondly, its habit of suckering from the lower eyes. The reason why vines (not *grapes*) need no waxing in grafting is because they are grafted below the surface of the ground. Waxing is done to protect against air and sun. Our new method of grafting is very similar to budding. It is simply grafting under the bark. The scion is cut with a long oblique cut, to one side of the scion; the stock is then cut off, the bark lifted with a knife, the scion pushed down between wood and bark, and the whole tied with matting. Of course, this must be done when the bark parts readily from the stock, not before April, and we have had fair success with it as late as June.

The Mary Ann is as strong a grower, as healthy and hardy as Concord. The fruit is somewhat smaller, but still a good-sized uniform bunch, and of fair quality.—ED.]

MARION HILL, NEAR RICHMOND, VA., }
September 9th, 1870. }

DEAR HUSMANN:

Though the season for grapes here has not been good, I have made some wine—mostly Concord. Some of my wine has been made more than two weeks; and, fermentation having ceased, it has been closed up to await the time of pressing.

I had no experience in wine-making, save as an amateur, and on a very small scale, and, therefore, tried to follow your directions as best I could, believing you to be about the best teacher I know of in such matters. But I found you differing with yourself, and this puzzled me no little. In your book on "Native Grapes and Wines," your directions were plain enough, and but for your subsequent "Hints on Wine-Making," page 260, of GRAPE CULTURIST, I would have had no difficulty. In your "CULTURIST," however, you say, experience has taught you that it is best to ferment each variety on the husks until the wine is clear and finished." This rule I undertook to follow, and have followed, though not in every particular, for I was not fully equipped for the business, and used make-shifts to considerable extent, because I thought they "would do," and did not like to go to the expense of doing what ought, perhaps, to have been done.

I had large casks—old whisky, brandy and gin casks, and these I used by taking out one head and setting them on end. It was a difficult matter to fit anything in the headway to hold the husks down under the fluid mass, as anything that would go in at the top would be too small by the time it went down sufficiently far to serve the purpose. Besides, my want of experience led me to fill up my casks too much, and the result was, I had to take out several gallons of the mash from the first and put it into the second, and again from the second into the third, for I made the same blunder twice. The first and second

casks were filled when the weather was exceedingly warm, and fermentation went off very rapidly—so rapidly that I was really alarmed lest damage should be done. In fact, I was afraid of acetous fermentation; and when I found the whole mass sour, rough and bitter, I was afraid the jig was up with my wine, at least so far as those two casks were concerned. But about this time the first one became still, and soon afterwards, the second one also.

I was now satisfied that the sour, rough taste was that of tannic, not of acetic acid, and so closed my casks. Meantime the weather had somewhat cooled off, and I expected the third and fourth casks would not move quite so rapidly. In this I was mistaken. They seemed to be trying to out-run each other, and had boiled for several days like two veritable cauldrons.—They were managed very nearly alike, and seemed to be proceeding precisely alike; and both very much, if not precisely, like the two preceding. But the third cask did not become still till about the tenth day, whereas the first and second ones had become still each on the ninth day. I closed up the fourth one this morning, though it is still "simmering," and this is its tenth day. I closed it up, but, to tell the truth, I am afraid it is of no use. If it is not vinegar, I am very much mistaken. It is almost clear, and quite sour. I cannot understand this. If anything, the fermentation seemed to be more rapid in this one than in either of the others; and, although it continued somewhat longer, I think the cooler weather would account for this. The others are wine; I am con-

vinced that this one is vinegar. I saw all the casks cleansed, and, if any difference, greater care was bestowed on this one than on either of the others.

I would be glad to have the reason why acetous fermentation should take place in this one, and go on so rapidly, whilst other casks treated precisely similarly should not suffer thus. I confess I can not understand it. I would like to have your opinion on it.

I have made all the casks tight by nailing in a false heading, and closing all openings with grafting wax, or a composition made of tallow and turpentine. You say leave the mash in the casks thus closed until December, and then press. Suppose I should conclude to try the treatment by electricity, could I not (ought I not to) press at once? I have conversed with a gentleman who says there is no humbug about the electric treatment, as he has seen it performed, and that new brandy treated thus has had impressed upon it, as it were instantaneously, the character and qualities of great age. This young man is perfectly satisfied that wine can be ripened by it in an incredibly short time—indeed, almost instantaneously. Have you experimented any in this way? Can I do anything for my wine? Please answer me.

In conclusion, would it not be a good idea for you to renew your advice as to wine-making? Take it for granted that there are a great many who know nothing about it, and wish to learn. These require you to give the whole process of wine-making, from the gathering of the grapes to the time the wine is ready for market, or fit to drink.

Respectfully, etc.,

G. K. GILMER.

[We are no "wise man" or sorcerer, to tell you what is the matter with your one cask of wine, as you say you treated them all alike, and had the casks equally clean. The least trifle may be the cause of acetous fermentation; a crust of bread dropped into the must, a trifling delay in closing up, etc. It is very difficult, however, to judge of wine in that condition, as it will change every day. It may be all right now.

You can rack off your wine at once, and try electricity to your heart's content, if you wish. We have not tried it, consequently know nothing of it. We do not know that our teachings in "grapes and wine, and in "grape culture," differ much, but if they do, we hope we have improved, and perhaps learned a few things since then.—ED].

INDEPENDENCE, Mo., Oct. 17th, 1870.

GEO. HUSMANN,

Dear Sir:—I know you are well posted in all matters pertaining to grape growing, and take the liberty of writing for your advice:

In the spring of 1866, I planted nearly three hundred grape vines—Concords and Delawares—six by eight feet apart, trained to stakes after the Fuller plan, of one vine the first year, two the second, and the third year tied the canes, four feet in length, to the lower bar of the trellis, training six upright bearing vines to each arm; and at the commencement of the fourth year, last spring, allowed twelve upright bearing vines to grow on each arm. I nailed common plasterer's lath to the bars of the trellis, and trained a vine on each side of the lath. The vines have grown finely

each year, borne three moderate crops, the last one about a thousand pounds, the Concords being remarkably large and fine in quality. The trellis is five feet high, and the Concords soon get to the top, requiring a great deal of pruning and ehecking of growth to keep them from so matting together as to render it difficult to pass between the rows. The season being a wet one last year, many of the grapes rotted, but this year there was no rot, or mildew, and the growth of wood so enormous as to make the labor great to confine each vine within the limits of eight feet.

And now for a few questions:—

1. Would you advise me to take up every other vine and extend the arms to eight feet in length? or,

2. Would you recommend to continue the Fuller plan for another year, cutting down the upright canes to the lowest bud, and keep each vine in its allotted space of eight feet?

3. What do you think of the idea of retaining every other one of the present upright vines for bearing purposes next year, and cutting down the others to the lowest bud, growing therefrom the bearing wood for the succeeding year?

4. If this last plan is pursued, how many bunches of grapes ought the present upright canes to average?

5. How do you like the spiral system of training grape vines?

I desire to add to my assortment a few more kinds, an earlier variety than the Delaware, and one or two long keeping kinds; which varieties do you recommend? Is the Eumelan any earlier than the Hartford Prolific?

How are the Martha and Goethe as keepers?

I shall feel myself under great obligations to you, if you can find time to answer my questions.

Very respectfully,

W. P. BENNETT.

[Question 1. We would not advise you to take up every other one of the vines, but give them *more to do*, in other words, let them bear more.

2, 3 and 4, may as well be answered together. We do not follow Fuller's plan, but as you have started on it, it may be as well to have six to eight eyes on every alternate cane, cutting down the other to two eyes. We cannot tell you how many bunches to have on each cane, that depends on the strength of the vine.

5. We do not think much of the spiral system of training, and think horizontal trellis the cheapest and best mode. You will find our reasons for it elsewhere in the GRAPE CULTURIST.

Of the newer varieties, we can recommend, for early market, Mary Ann, Telegraph and Creveling; middle of season, Martha, Maxatawney and Wilder; for late keeping, Goethe and Rogers' No. 2. Norton's Virginia, though a small berry, will also keep well.—ED.]

EDGEGOOD, Ill., Nov. 9, 1870

FRIEND HUSMANN:

I have sent you a sample of my Concord wine made the middle of last September. It is the pure juice and it is my first undertaking in trying to make wine. I wish you would give me some advice about it, and tell me the quality of the wine; in

fact, tell me all about it, and if it wants any sugar and how much to the gallon. I have been advised a good deal about the wine, but I want your advice and opinion as to how I ought to manage it. Answer as soon as possible. Please oblige me.

E. A. HEGEMAN.

[The wine has not yet come to hand; as soon as it does, we will give you our opinion and advice. It would be of no use to add sugar now, if necessary, that should be done before fermentation, added to the must.—EDITOR.]

EFFINGHAM CO., Ill., Nov. 4th, 1870.

MR. G. HUSMANN:

Sir: I have received the ten numbers of GRAPE CULTURIST, and I am very well pleased with them, and you can count on me renewing my subscription for next year, if you continue it. Please to answer in December number which is the latest native (bunch)grapes; also which two grapes, black and white, are the best for market. Yours respectfully,

J. BOSTOCK.

[Rogers' No. 1 (Goethe No. 2 and 8, the two last not yet named) are among the latest and best varieties. You will find Martha (white), Goethe (light red), and Wilder (black) among the most profitable and best for market; at least they are so here.—ED.]

CLINTON, Mo., November 1, 1870.

MR. HUSMANN:

Dear Sir—Inclosed please find five leaves, No. 1, 2, 3, 4 and 5. Can you tell me what they are? No. 3 I bought and planted four hundred vines for Delaware one year ago last spring.

My neighbor, Mr. Duncan, thinks they are Concords. No. 1, 2, and 4, one hundred vines each, planted last spring. I bought Concord, Norton, Virginia, Herbemont, Hartford, Prolific and the Clinton, one hundred vines each, of a Washington man, but he sent me only three hundred, and the labels were lost when I received them. The No. 5 I have about twelve or fifteen hundred plants that I raised from cuttings this summer; some are very good, and some I think not. My object in writing this letter is, I wish to plant one and a half acres more this winter or next spring, and I wish some advice what to plant. My ground is ready to plant. How many of my plants would you plant, and what other variety? Please answer through the CULTURIST or by letter, and oblige a new beginner. I have your book, and have lately subscribed for the CULTURIST.

Hoping to hear from you soon, I remain, yours truly, &c., J. J. GOBAR.

[No. 3 is Concord, we think; No. 2 we suppose to be Clinton. We can not venture an opinion as to the others, as it is very difficult to judge of a variety by a single leaf, and that dried up. If we saw the vines we could very likely tell you what they are. One advice would be not to plant any of your vines if you do not know what they are. Rather buy from a reliable nursery. We send you March number, 1869, of GRAPE CULTURIST, in which you will find our advice about what to plant.—ED.]

BARRANCAS, Fla., Oct. 23, 1870.

MR. GEORGE HUSMANN:

Can you answer these questions? What vines do you recommend for this State (Florida) for wine especially? Vines generally, I believe without exception, become free and rampant growers; should they not be set a little farther apart?

I give you the mean of the thermometer at Jacksonville, near my future home, for the last 21 years:

January.....	55.02	July.....	81.93
February....	58.03	August.....	81.98
March.....	63.88	September...	78.62
April	70.11	October.....	70.68
May.....	76.59	November...	62.54
June.....	80.39	December...	54.20

Respectfully yours,

CHARLES F. POWELL.

[We can not advise you with any certainty for your location, as we know too little about it, and do not wish to mislead. Norton, Cynthiana, Hermann, Herbemont, Cunningham and Goethe *may* suit.

We have found ten feet in the row amply sufficient for even the most rampant growers.—ED.]

INDEPENDENCE, Mo., Oct. 24, 1870.
GEORGE HUSMANN:

Your circular and letter are before me. When I wrote you the other day, I did not know that you were connected with a publication devoted to grape culture. If I am pleased with the number you speak of having sent me, more than likely I shall subscribe for it. It has not yet come to hand.

If not too late to add another question (and answer) to my former note, please attend to this:

How deep should the vineyard be plowed, and how close to the vines ought the plow to be run? Should this work be done in the fall?

Do you advise setting grape cuttings in the fall in the ground where they are designed to grow? I have never tried this, but have thought that by placing them in the soil in the fall and mulching with long manure, that they would be likely to do better than when put out in the spring.

Truly yours, U. P. BENNETT.

[Plowing in fall is very advisable, as it will cover up all dead leaves and

rubbish, and leave the ground in good condition for spring. Plow about three inches deep, throwing the ground up to the vines. If you mulch your cuttings heavily, so that the frost cannot *heave* them, planting in fall is very advisable.—Ed.

WARSAW, ILL., Nov. 29, 1870.

EDITOR GRAPE CULTURIST:

Would you recommend grafting an acre of Clinton vines, five years old, or taking them out and resetting with young vines?

2d. Do you think that either the Martha Goethe, or Wilder will make as good wine as the Concord?

3d. Would you set cuttings in vineyard, or wait and raise the plants?

4th. You say, in pruning Concord vines, to leave several eyes on the laterals, but where the laterals have grown from six to eight feet, why would it not be a good idea to use them for canes? Respectfully, yours,

“SUBSCRIBER.”

[1st. We do not know what to advise. Our experience has been unfavorable in grafting Clintons. The grafts do not take readily, although those which do take, grow amazingly, and the stock suckers very much.

2d. Much better.

3d. Setting cuttings in vineyard is always an uncertain way of stocking it. It may succeed tolerably well, and it may not, as the season may happen to be. It also depends upon the variety, as some will grow readily from cuttings, while others will not succeed at all.

4th. The length to which laterals should be pruned, of course depends on their strength, from two to eight eyes.—
EDITOR.]

MCKINNEY, Texas, Nov. 12, 1870.

EDITOR GRAPE CULTURIST:—I will be glad to receive a little light on a question or two.

1st. We are told that a healthy

grape should hold its leaves till frost. Yet again, that a healthy vine must be ripened to its very tip before frost. Does not a grape-vine drop its leaves as it ripens? Or must the wood be well ripened and yet be full of green leaves? I thought the ripe vine and green leaves did not go together. How is it?

2d. If I want my grape vines to do the best, shall I allow them to fall around the first year with no supports and no pinching or other attention, or shall I tie to a stake as it grows and keep laterals pinched? Would not the latter leave a cleaner, better formed and more vigorous cane than the former? Yours respectfully,

THOS. R. LOGAN.

[1. Varieties differ in their habits. Some will drop their leaves as soon as the wood is ripe, on others they will remain fresh and green until frost.

2. Vines will grow more stocky and compact, with shorter joints, if the laterals are allowed to grow unchecked. It is very immaterial whether they are tied up or not the first summer. Clean or mellow culture of the soil is much more important.—Ed.]

ELDORADO, Ark., Nov. 10th, 1870.
MR. GEO. HUSSMANN, St. Louis:

Dear Sir:—I will send you this winter a sample of wine made last August, my first attempt, and by your instructions. Judges say it is excellent. My vineyard promises all I could expect. I want to send you some native vines to try.

Wishing you complete success in your efforts to enlarge the field of grape culture, and the realization of all your hopes financially, I remain, sir, yours respectfully, J. C. WRIGHT.

[Shall be pleased to receive a sample of your wine, as we have seldom tasted anything grown and made “down South,” and will report on it faithfully.—EDITOR.]

WANTED.

WANTED—An industrious energetic man experienced in grape growing, to take charge of a young vineyard situated one mile and a half from Little Rock, Arkansas. The location is a beautiful table land, on a bluff elevation of some three hundred feet, on north bank of Arkansas river, overlooking the city and railroad depots, convenient to both; and is, all things considered, the most desirable in the State for a large vineyard. A partnership with responsible party of some means preferred, but this not essential. Correspondence solicited. Address, J. W. MARTIN, Little Rock, Ark.

WANTED several active, enterprising salesmen, to sell wines and plants for the Bluffton Wine Company. Parties wishing to engage, should address,

WM. WESSELHOEFT,
Secretary Bluffton Wine Co., Bluffton, Mo.

VICK'S FLORAL GUIDE FOR 1871.

THE first edition of one hundred and fifty thousand copies of VICK'S ILLUSTRATED CATALOGUE OF SEEDS AND FLORAL GUIDE is published and ready to send out— one hundred pages, and an Engraving of almost every desirable Flower and Vegetable. It is elegantly printed on fine tinted paper, illustrated with Three Hundred fine Wood Engravings and two beautiful

COLORED PLATES.

The most beautiful and the most instructive Floral Guide published. A GERMAN EDITION published, in all other respects similar to the English.

Sent free to all my customers of 1870, as rapidly as possible, without application. Sent to all others who order them for *Ten Cents*, which is not half the cost. Address

dec-2t JAMES VICK, Rochester, N. Y.

PUBLISHED AND FOR SALE

BY

CONRAD WITTER,
ST. LOUIS, MO.

MUENCH, FREDERICK, *School for American Grape Culture*. Brief but thorough guide to the laying out of vineyards, the treatment of vines and the production of wine in North America.

MUENCH, F., *Amerikanische Weinbauschule und Weinbereitungslehre, etc.*

Either one of these books will be mailed free of postage on receipt of one dollar.

HUSMANN, GEORGE, *The Cultivation of the Native Grape and Manufacture of American Wines.*

On the receipt of \$1 50 this book will be mailed to any address.

SCHMIDT, J. A., *The Diseases of Wine*, how to prevent and how to cure them, according to the doctrines of M. Pasteur.

This book will be sent, free of postage, on receipt of \$2.

C. WITTER keeps a large assortment of books treating on the Culture of Grapes and Manufacture of Wines.

Catalogues sent on application. Please address letters,

CONRAD WITTER,

122 S. E. corner Walnut and Second Sts., St. Louis, Mo.

1,000,000

GRAPE VINES FOR SALE,

Of all the Leading Varieties, true to name.

As I am *bound to sell*, will sell LOWER than any one else.

CONCORD VINES. good two-year old, only \$25 per 1,000.

Other varieties in proportion. Also, Currant, Gooseberry, Strawberry, Raspberry, Blackberry, Rhubarb, Roses, and other plants.

Apple Trees, one, two and three years, very cheap.

I will also take good Western Lands, at cash price, in trade.

Address, and send for Price List, and three new Essays on Grape Culture, to

Dr. H. SHRÖDER,

Bloomington, Ill.

HAVE YOU GOT MARTHA?

GRAPE VINES AND SMALL FRUITS.

[Nursery Established in 1857.]

A splendid stock of Vines and Plants are offered the coming Fall and Spring, including nearly every variety known to be of value. The popular and white Grape

MARTHA, OR (WHITE CONCORD,)

In large or small quantities. Also, Arnold's new Hybrids, Eumelan, Walter, Weehawken, Christine, Hine, and all valuable numbers of Rogers' Hybrids; also, Delaware, Iona, Isabella, Concord, Hartford, Ives, Norton's Virginia, etc., etc., in all about one hundred distinct varieties.

Kittatinny Blackberries and Clarke Raspberries in large quantities, Jucunda and Charles Downing Strawberries, Downing's Seedling Gooseberries, Cherry, Versailles, White Grape, and Black Naples Currants, etc., etc.

Send stamps for Illustrated Catalogue and Price Lists to

apr69-tf

GEO. W. CAMPBELL, Delaware, Ohio.

D'HEUREUSE AIR TREATMENT.

PATENTED AUG. 6th, 1867, AND AUG. 3d 1869.

For FERMENTATION and GERMINATION, and for PRESERVING, PURIFYING and IMPROVING of Organic Substances.

Exceedingly useful in Malting, Brewing, Distilling, Baking, Manufacture of Wine, Cider, Fruit Wines, Fruit Brandies, Vinegar, etc.; in Sugar Works, Oil Works, Manufacture of Extracts, Preserves; in Storehouses, Transportation of Grain, Produce, Fruit: Purification of Water, etc., etc.

 Rights for States, Counties, Districts, or Establishments, for sale. Apply to

P. O. Box 6844.

R. D'HEUREUSE, New York.

Missouri Wines and Plants.

THE BLUFFTON WINE COMPANY

NOW offers to the trade, and to the public generally, its first crop of wines, grown at Bluffton, comprising, of red wines, Concord, Norton's Virginia, Ives, and Clinton; of white wines, Concord, Catawba, Hartford, Delaware, and Herbeumont.

Our wines are of excellent quality, and we are sure that they will give general satisfaction to consumers. Our motto is, "Low prices, good quality, and quick sales;" and Wholesale Dealers in wines will find it in their interest to apply to us. Price lists sent on application.

We also call the attention of Grape Growers to our large and complete stock of plants of all the leading varieties. We shall make it our aim, in our fall trade, to supply our customers with the best of plants, and at as low rates as any reliable firm.

Descriptive Catalogues sent, on application to

WM. WESSELHOFT, Secretary,

BLUFFTON, MO.

Bushberg Vineyards & Grape Nurseries.

GREAT REDUCTION IN THE PRICE OF

GRAPE VINES

AND SMALL FRUITS.

 **SEND FOR NEW PRICE LIST FOR FALL 1870.** 

Our ILLUSTRATED DESCRIPTIVE CATALOGUE—“More useful to the Grape Grower than some works of much greater pretensions.”—*Am. Agriculturist*,—will be sent by Mail, post-paid, for only 25 cents, either in the German or English Edition, as you may order.

 Agents Wanted to canvass for orders for Fall delivery. Terms liberal, profits handsome. Posters, Price Lists, etc., gratis. Address,

ISIDOR BUSH & SON, Bushberg, Mo.

G R A P E W O O D Y

T W E N T Y K I N D S !

Immense Stock, especially of

Concord, Ives, Delaware, Hartford, Iona, Catawba, Isabella, Clinton, Rogers' Nos. 4, 15 and 19, etc.

Cut from Bearing Vines before hard freezing, and stored in frost-proof Cellars.

Very Low for Cash. Price List Gratis.

ALSO, LEADING VARIETIES OF GRAPE ROOT IN STORE.

Can ship South safely at any time.

M. H. LEWIS, Sandusky, Ohio.

Grape Vines! Grape Vines!

FALL OF 1870!

We offer our usually large and selected stock of all standard and new varieties, including

SALEM,	MERRIMACK,	IONA,	CYNTHIANA,
WILDER,	GOETHE,	HARTFORD,	MARTHA,
LINDLEY,	CONCORD,	DIANA,	EUMELAN,
AGAWAM,	DELAWARE,	HERBEMONT,	WALTER.

SALEM A SPECIALTY.

Our stock of plants will be unequaled, and quality of superior excellency. Salem, with us, is bearing a fine crop of fruit, and must soon become one of the leading varieties in cultivation. It fulfills all that has been claimed for it. For circulars, etc., address

I. H. BABCOCK & CO.,

aug70-3m

Lockport, N. Y.

Tilton's Journal of Horticulture AND FLORAL MAGAZINE.

An Illustrated Monthly Magazine devoted to the culture of Fruits, Flowers, and Vegetables. Illustrations of

NEW THINGS IN HORTICULTURE

Will be given in each number.

Subscription Price \$1.50 per annum. Ten Copies \$1 each.

The remaining numbers of this year will be sent Free to Subscribers for 1871. Elegant Premiums given for making up Clubs. Among the contributors for the JOURNAL are

MARSHALL P. WILDER. MASS.

John A. Warder, Ohio.
Geo. W. Campbell, Ohio.
Francis Parkman, Mass.
Joseph Beck, Mass.
R. Manning, Mass
Peter Henderson, N. Y.
Charles Downing, N. Y.

Henry Ward Beecher, N. Y.
Ed F. Underhill, N. Y.
George Such, N. J.
W. G. Strong, Mass.
William C. Flagg, Illinois.
James F. C. Hyde, Mass.
Parker Earle, Illinois.

Charles M. Hovey, Mass.
Fearing Burr, Mass.
William Saunders, D. C.
S. Miller, Mo.
C. B. Denson, N. C.
Wm Parry, N. J.

**J. E. TILTON & CO., BOSTON,
Publishers.**

A Sample Copy, Club and Premium List will be sent to any address upon receipt of 15 cents.

CHOICE VARIETIES OF Grape Vines, Strawberry Plants, Raspberry, Blackberry & Gooseberry.

Also, a few Peach and Cherry Trees, the finest growths. Particular attention will be paid to small orders of plants to be sent by mail. For sale by

SAMUEL MILLER, Bluffton, Mo.

HENRY TWITCHELL,

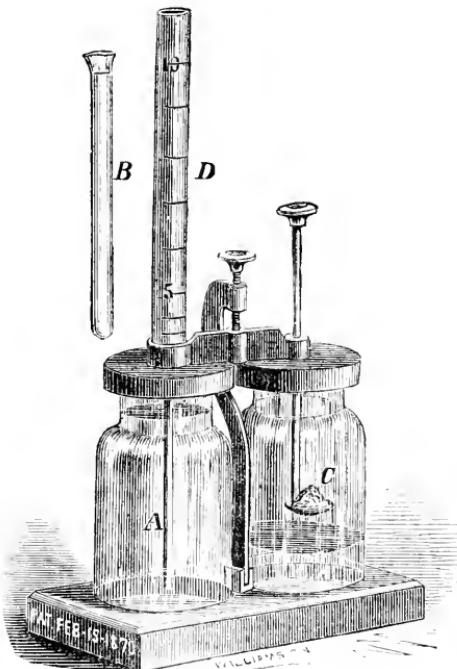
(Late of firm of JAMES FOSTER, JR., & CO.,)

OPTICIAN,

MANUFACTURER OF

**HYDROMETERS, THERMOMETERS and GAUGERS'
INSTRUMENTS, SACCHAROMETERS,**

AND INVENTOR OF



TWITCHELLS

ACIDOMETER.

Price of ACIDOMETER FOR MUST OR WINE.....	\$10 00
Price of SACCHAROMETER (SILVER).....	10 00
Price of OECHSLE'S MUST OR WINE SCALE.....	10 00

Price list of other instruments sent, on application to

HENRY TWITCHELL,

132 West Fourth Street,

CINCINNATI, OHIO.

sep70-3t

SMALL FRUITS A SPECIALTY.

STRAWBERRIES, BLACKBERRIES, Currants and GRAPE VINES
of all the leading varieties, at the LOWEST RATES.

Send for Price List.

Address

JOHN COOK,

(Nursery 2 miles from Baltimore, on old Frederick Road,
Carroll P. O., Baltimore Co., Maryland.)

oct70-1t

